

Internet Programming

Web Site Design

Dan Brandon, Ph.D., PMP

Nielsen Norman Research Group

- The average website **loses 1/3 of its customers due to poor design**
- Individuals will exit web sites within 2 minutes if they cannot find what they want



Poor Design



Website Design Issues

- Planning/design Standard Questions
- Understand Users and Their Needs
- Content Selection
- Prioritization of Content
- Organizing Content (site layout)
- Compelling Content
- Standing Out from the Crowd
- KISS
- Loading Speed
- Personalization
- Consistent Appearance and Behavior
- Design Guidelines
- Browser Compatibility
- Search Engine Optimization
- Content Management



Understanding Users and Their Needs

- Who are your main customers/users ?
- What do they need to see/do ?
 - User scenarios
 - Content needed
 - Relative priority



Who Will Be Your Customers ?

(demographics & geographics)

MILLENNIALS

Born from about 1982 to 2004, they started entering the workforce just as jobs went south



GENERATION X

The one-time slackers, born from 1965 to 1982, are all grown up (with bills and kids to prove it)



1 PERCENTERS

Their Champagne wishes and caviar dreams came true!



BABY BOOMERS

Born from 1946 to 1964, they're finally aging out of their prime consumption years



DINKS

Dual income, no kids couples, an offshoot of the 1980s yuppies, are still around—and shopping



Planning & Design Questions

- How will you communicate your brand? (if applicable)
- What content will make this site unique and attractive?
- What will keep visitors coming back?
- What sort of interactive content does the site need?
- Should the site include some form of entertainment to keep people interested?
- Should we build a community through message boards, memberships, chat areas, and special interest areas?
- What multimedia components might facilitate meeting our objectives?
- Should we include a mission statement and/or company profile?

Planning & Design Questions (con't)

- Should the site include a help section that allows users to provide feedback and contact the organization?
- Should the site include product pictures and descriptions?
- Should the site include descriptions of services, fees, and related information?
- How can the site be categorized? Should it be categorized?
- Will the site require the use of forms?
- Will the site need to be tied to a data source or database?
- Should we include external links? To what sites?

Outlining & Prioritizing Content

- How important is this information or category?
- What are the objectives of this category of information?
- Is this content of general or special interest?
- How should this information or category be accessed?
- Should this information be on the home page, or buried deeper in the site?
- Will this information change or remain static?
- How will these categories be related? Where do they belong in the linking scheme?
- Does this information belong in sub-category of another section?

Content Evaluation Example

Priority 1	Priority 2	Priority 3
welcome statement	catalog pages	message board
logo/slogan	research tips	chat room
primary navigation links	membership form	famous quotes
daily content	membership information	suggestion "box"
dynamic content that's user-specific	information on upcoming features	
special promotions	information about the company/FAQ	
contact information	transaction policies	

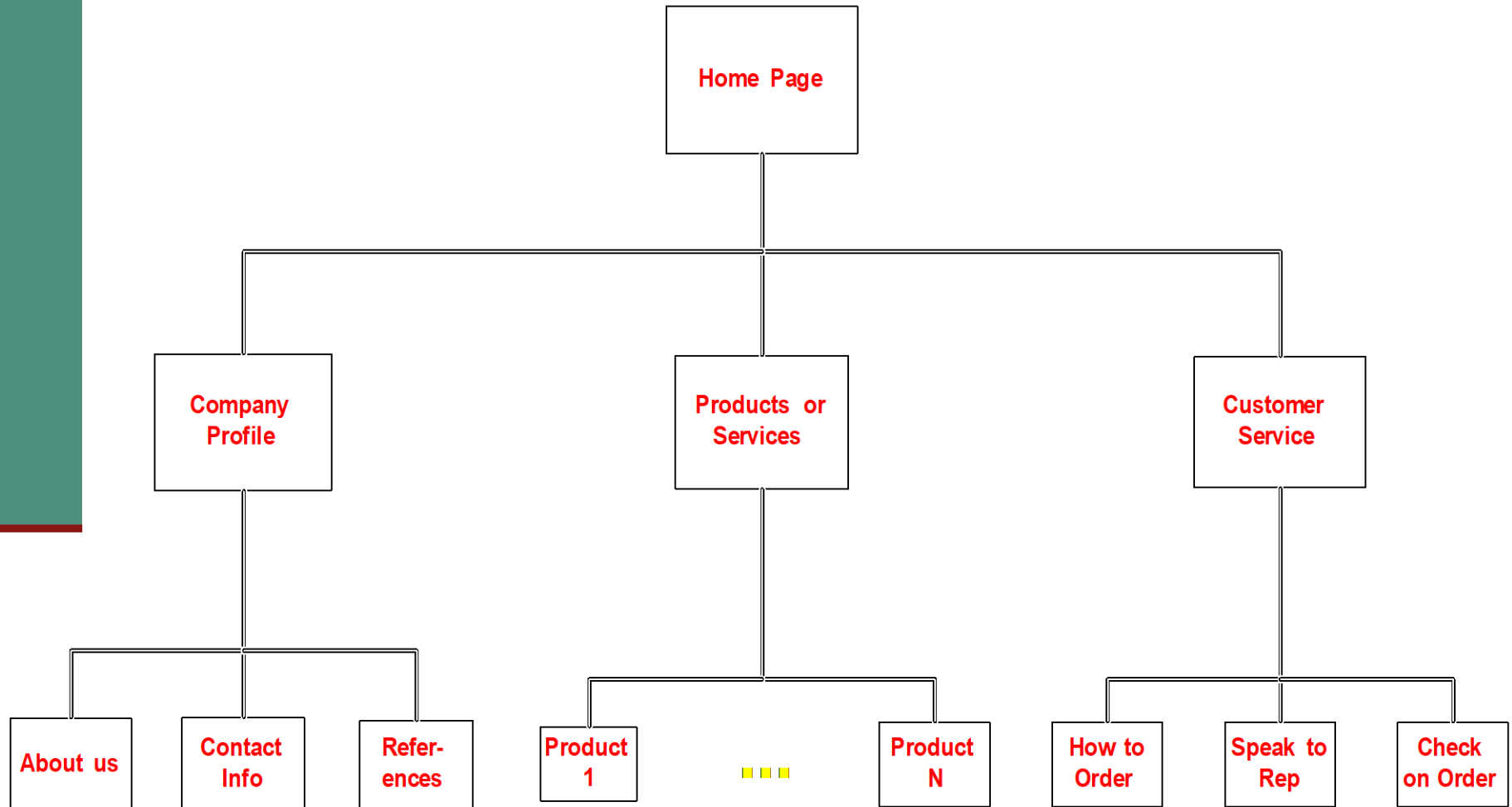
Higher priority content will be reachable in less clicks.

Organizing your Website

- Just like building a house, it pays to take some time and carefully plan your website (tools vs plans)
- On your main web page you might only have only:
 - Company name
 - Logo (“identity” & “brand”)
 - “Eye Catchers” (“New”, “Free”, “Win”, “Contest”, ...)
 - Links to the rest of your site
 - “Sales Hooks” (“Discount”, “Sale”, ...)
- Have your links logically arranged (like in a row or column):
 - Near the top middle
 - On either side

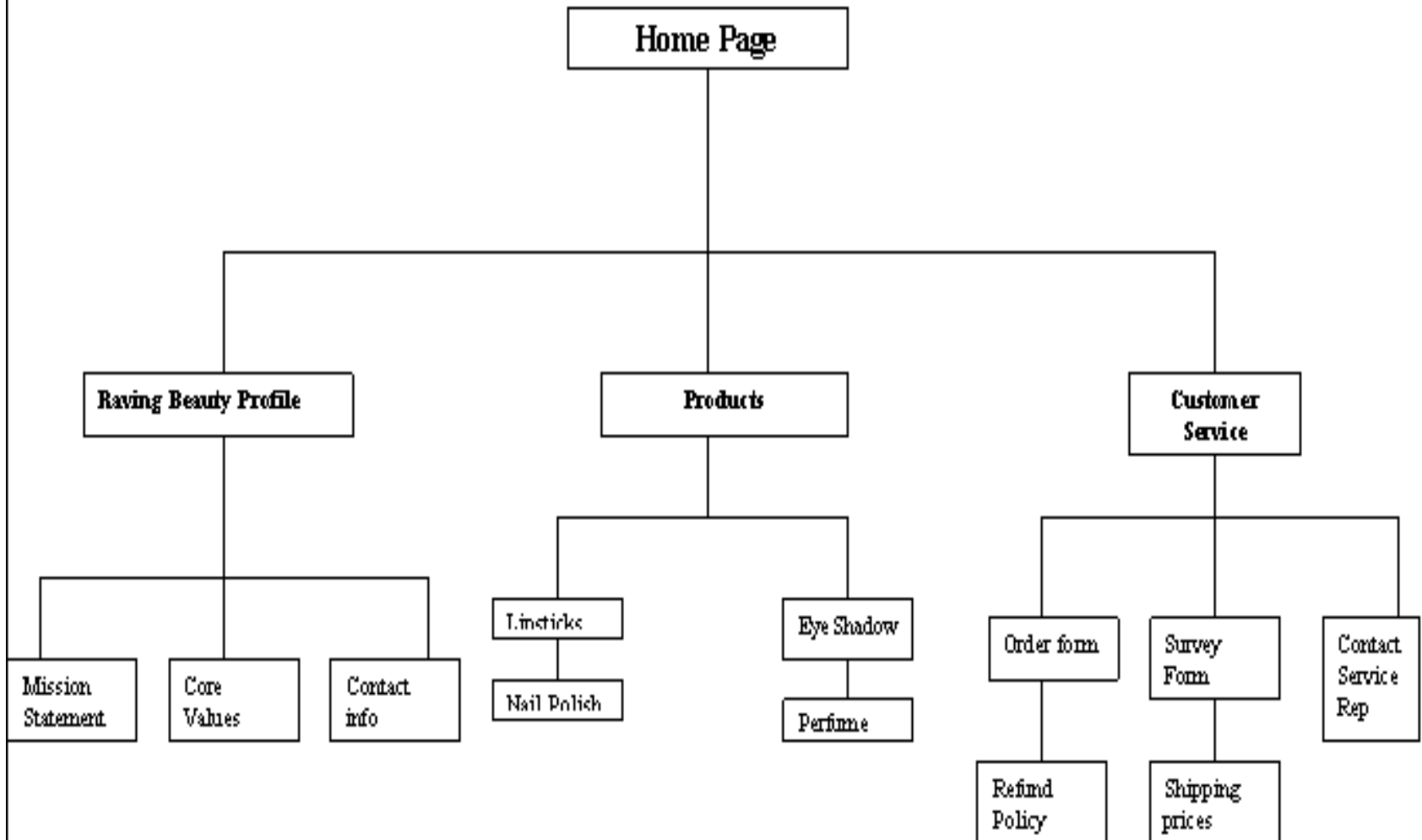
Design Diagram

["tree" structure]



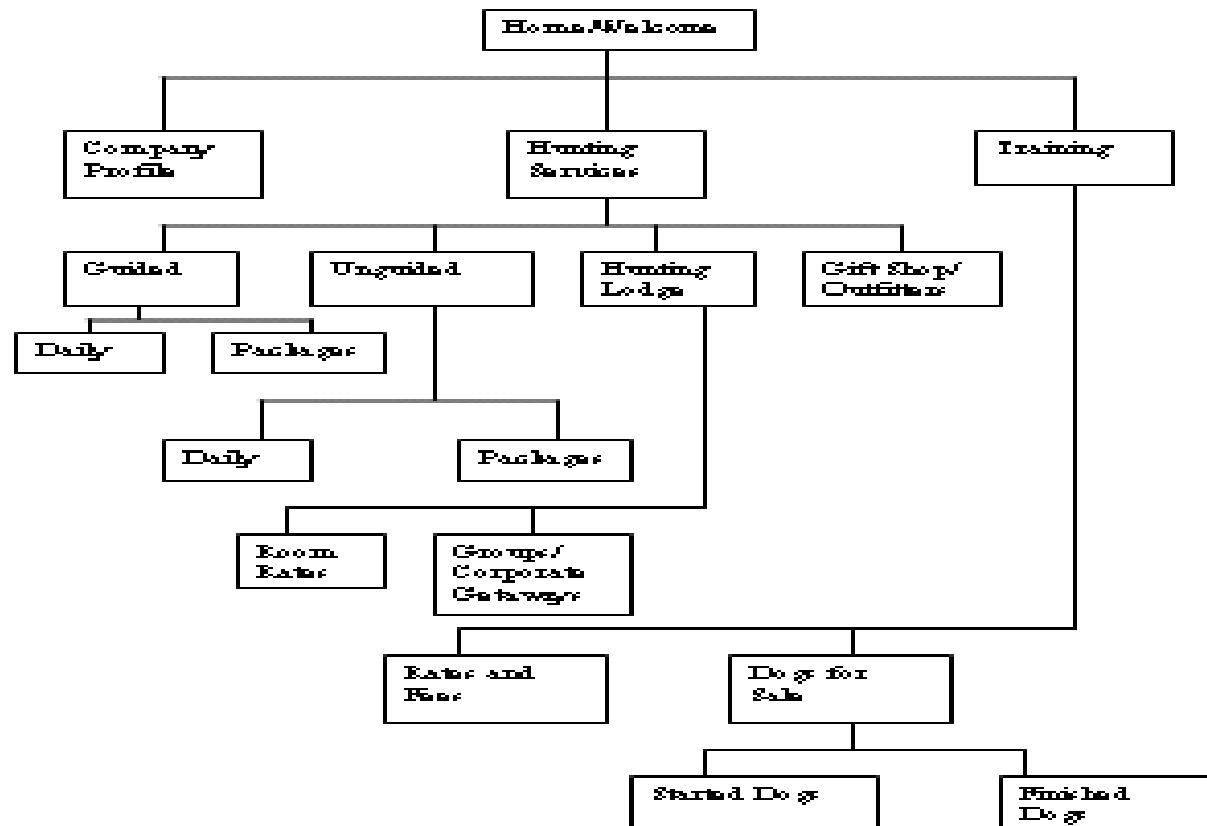
Website Design Example

Raving Beauty Web Page Plan

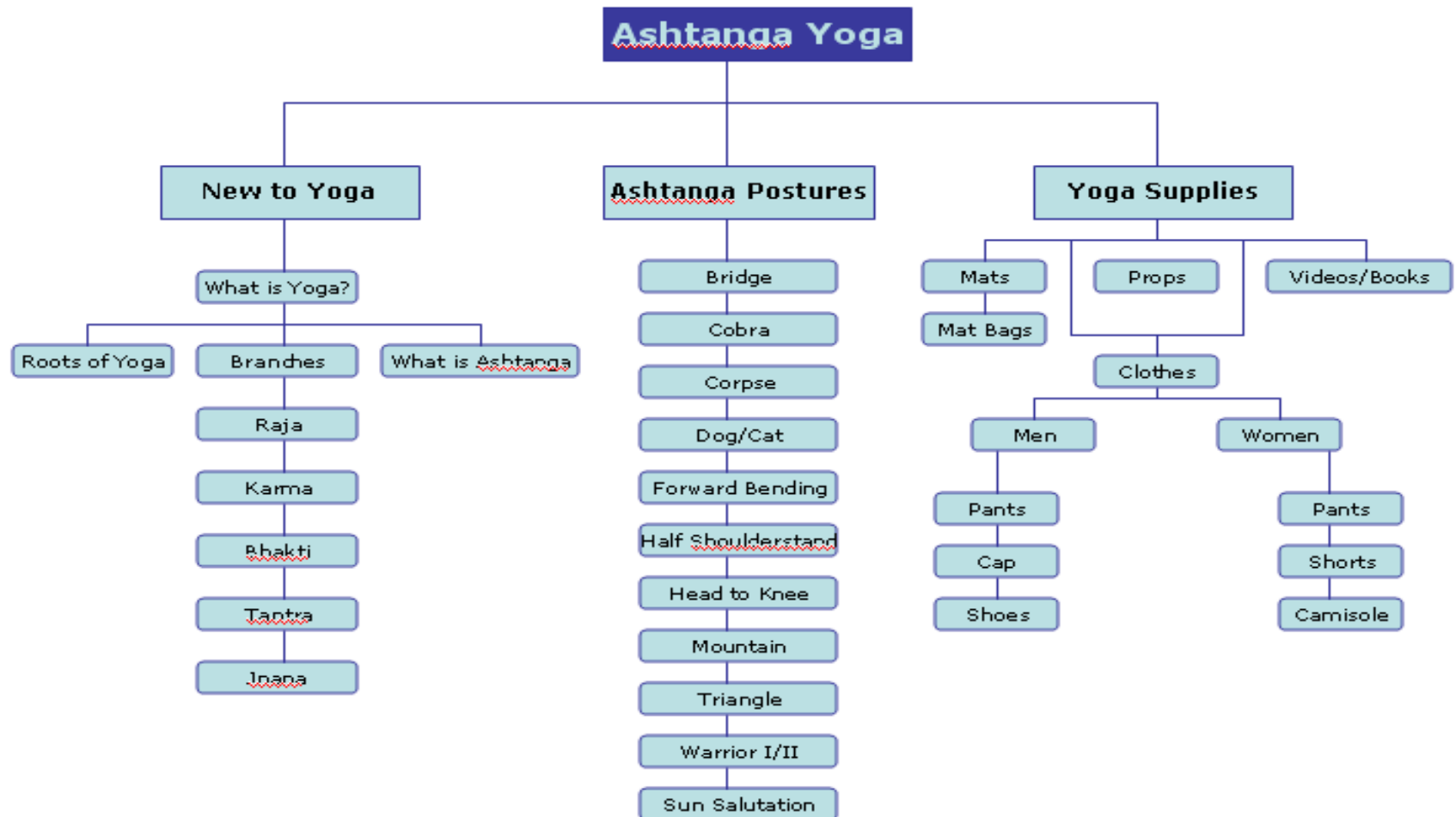


Website Design Example

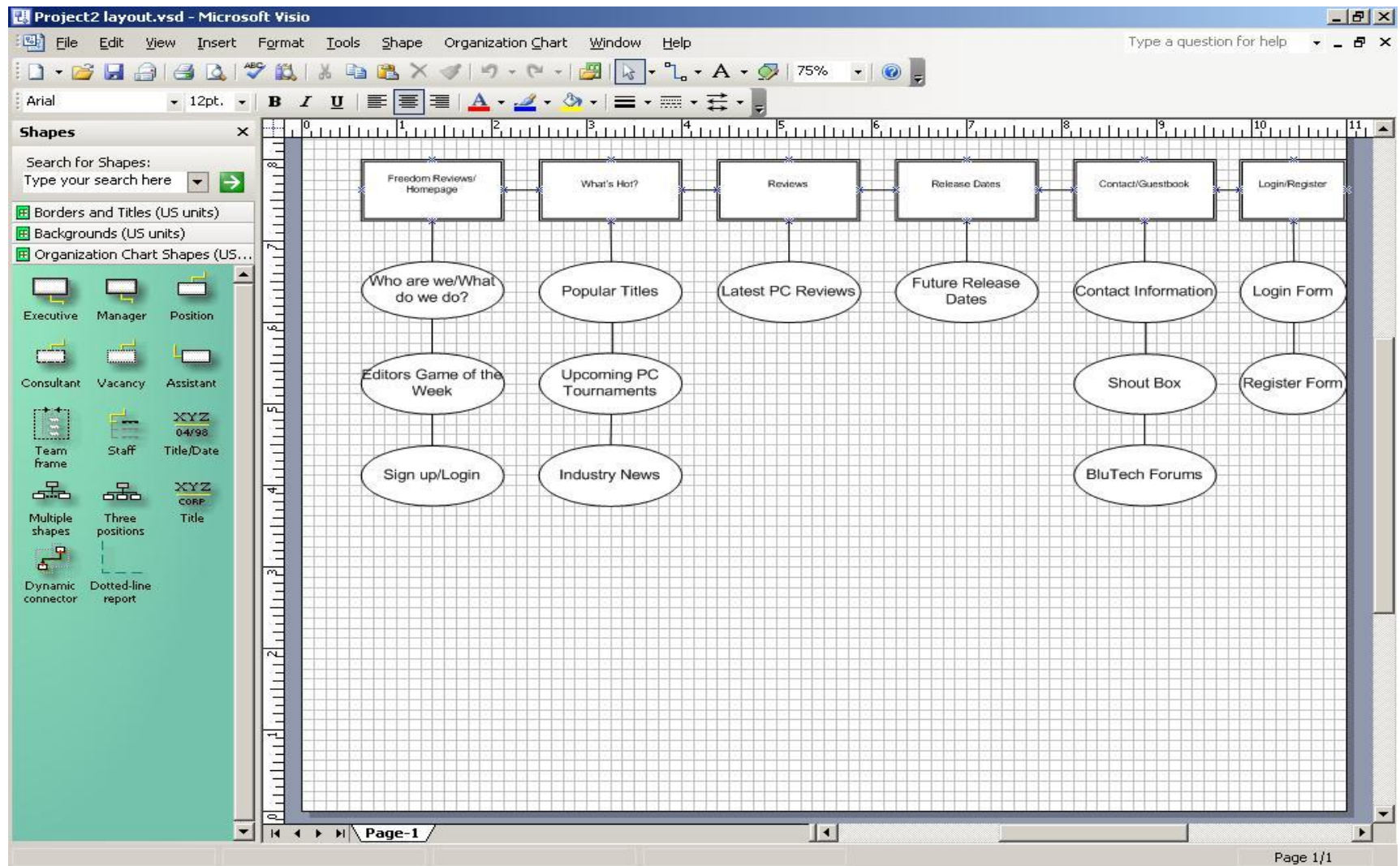
HuntingLodge Website Plan



Website Design Example



Web Design in Visio



Gliffy – Free Drawing Software



The screenshot shows the Gliffy website homepage. At the top left is the Gliffy logo, a blue diamond with a white 'G' inside. To its right are two buttons: 'LOGIN' and 'TRY IT NOW!'. Below these are four navigation tabs: 'Products', 'Examples', 'Support', and 'About'. A 'Newest Headlines' section follows, dated 'Oct 26 2011', stating 'Gliffy 4 conveniently available in Atlassian's new OnDemand service'. The main content area features a 3D robot character on the left and a large orange speech bubble on the right that says 'Let's get started: Try it now free'. Below the speech bubble, the text reads 'Create great looking diagrams now – free!' and 'Easily create professional-quality flowcharts, diagrams, floor plans, technical drawings, and more!'. To the left of this text are four bullet points, each with a green icon: a dollar sign for 'Save Thousands Compared to Visio', a power button for 'No Compatibility or Access Issues', a lightbulb for 'Easy to Use', and two speech bubbles for 'Collaborate Instantly with Anyone'. To the right of these bullet points is a video player showing a diagram of a globe with a play button in the center. At the bottom of the page is a horizontal carousel of five diagram types: 'Flowcharts', 'SWOT Charts', 'Network Layouts', 'Venn Diagrams', and 'Org Charts', each with a representative image and a blue arrow pointing right.

gliffy

LOGIN TRY IT NOW!

Products Examples Support About

Newest Headlines: Oct 26 2011: Gliffy 4 conveniently available in Atlassian's new OnDemand service

Let's get started: Try it now free

Create great looking diagrams now – free!

Easily create professional-quality flowcharts, diagrams, floor plans, technical drawings, and more!

Save Thousands Compared to Visio
Gliffy's intuitive drag-and-drop interface combines the power of traditional desktop software with the lightweight, low learning curve and flexible features of today's most popular browser-based applications.

No Compatibility or Access Issues
Gliffy works through your web browser, it's Mac and PC friendly.

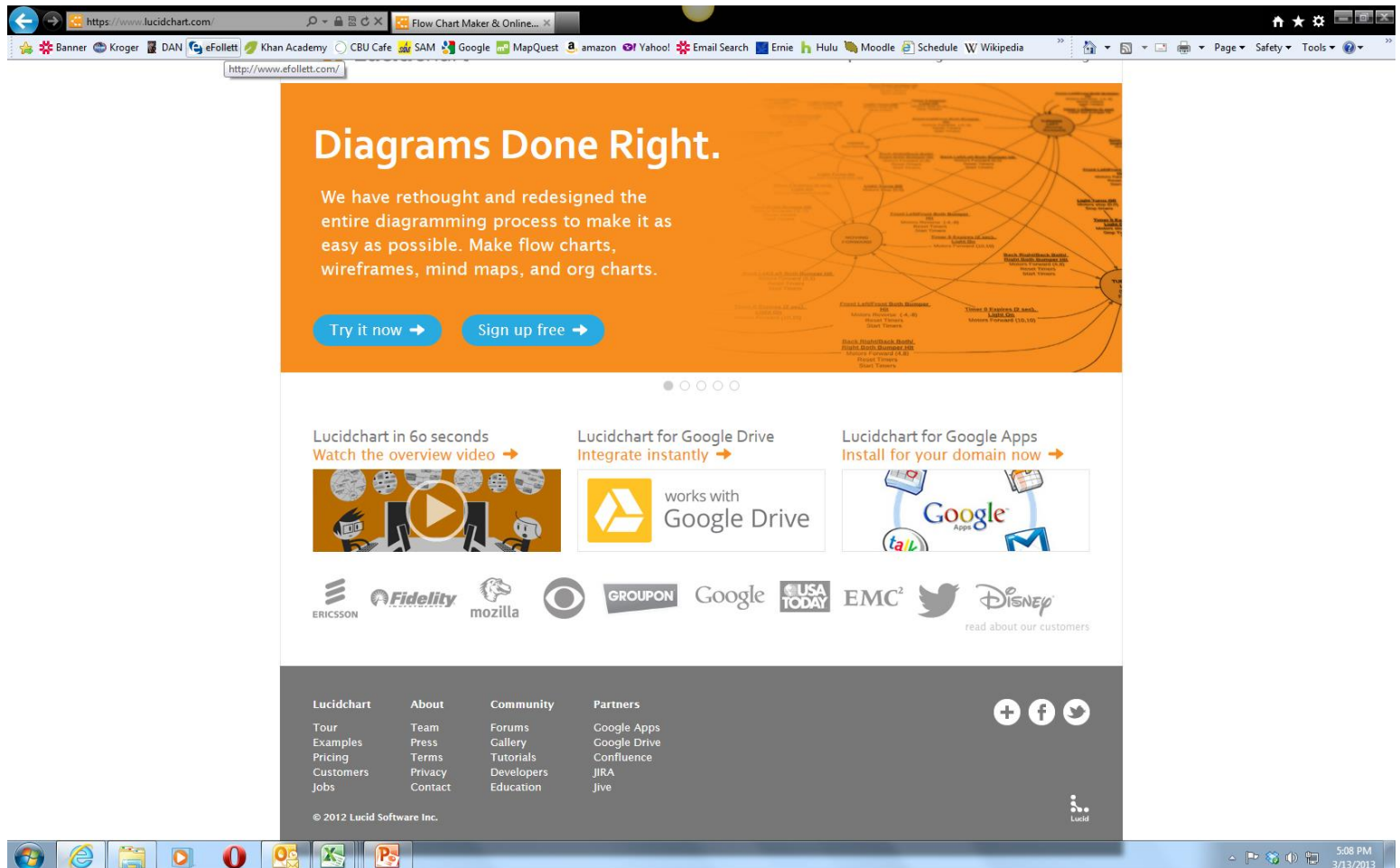
Easy to Use
Just drag-and-drop shapes from an extensive library and point-and-click your way to format. No expertise needed.

Collaborate Instantly with Anyone
Whether you use Gliffy as a plugin or online, share and collaborate on your diagrams instantly.

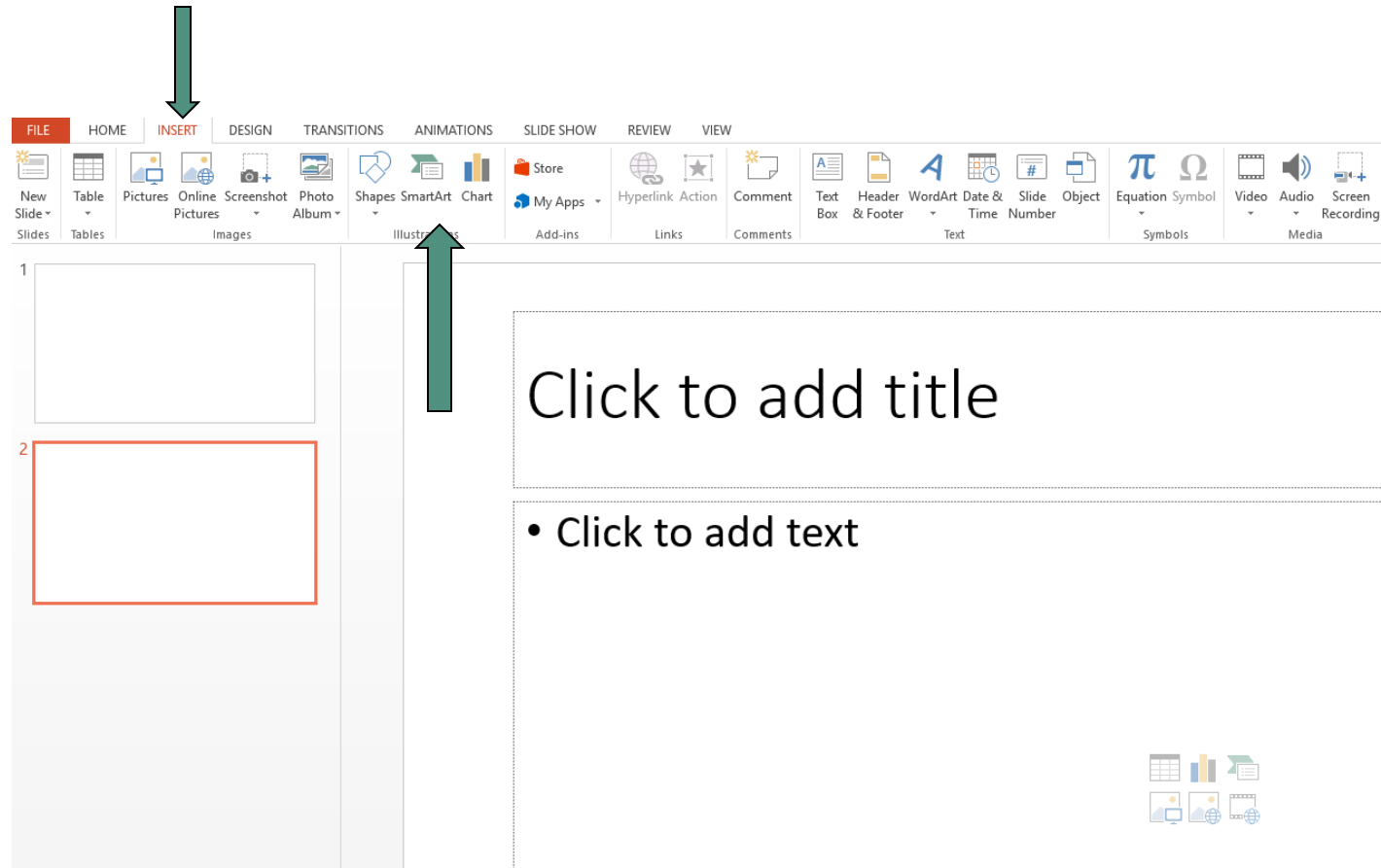
Flowcharts SWOT Charts Network Layouts Venn Diagrams Org Charts

Lucid Chart – Free Drawing Software

<https://www.lucidchart.com/>



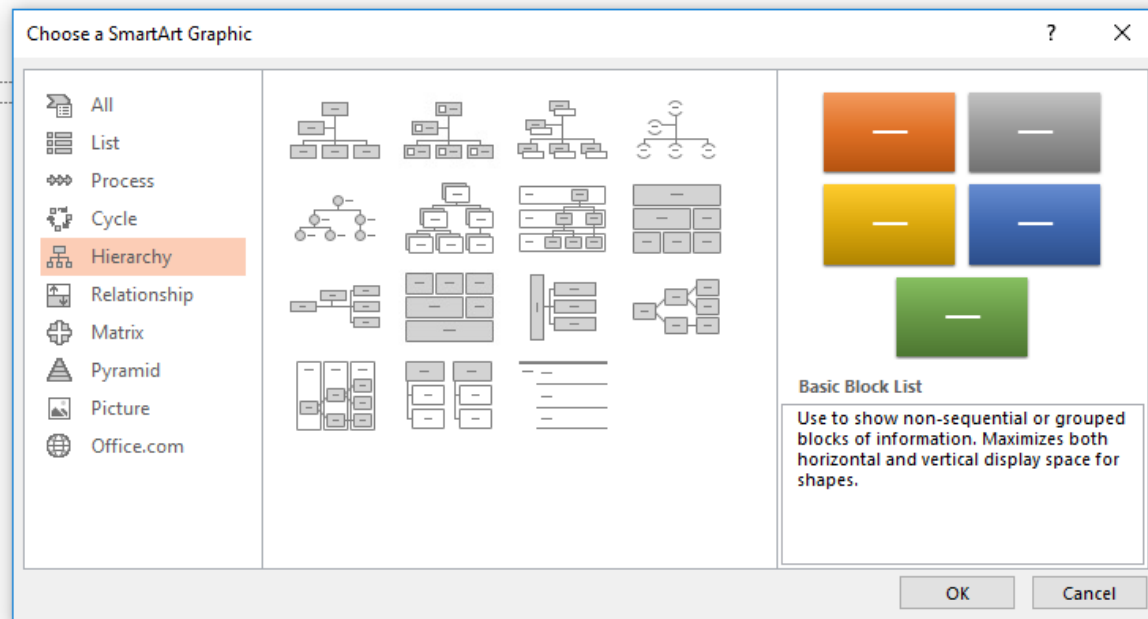
Microsoft Office Smart Art



Smart Art (con't)

Click to add title

• Click



“Compelling” Content

- Aesthetically appealing
- Good Imagery
- Credentials, awards, etc.
- Major references & testimonials
- Say what you can do for your customer, and why you are so good at it

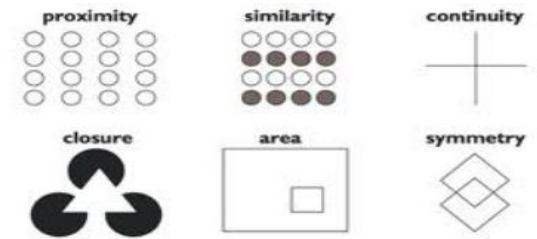


Aesthetics & Art

[not directly covered in this class]

- Proper use of “elements of design”:
 - Lines, directions, shapes, size, texture, color
- Proper use of “design principles”:
 - Repetition, alternation, harmony, gradation, contrast, dominance, unity, balance
- “Gestalt Principles [the human mind perceives things primarily by context]:
 - Figure, ground, similarity, proximity (contiguity), continuity, closure, area, symmetry
- Multimedia integration: graphics, still images, moving graphics (animation), moving images (video), sound

Gestalt Principles



Gestalt Principles of Perception - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Discuss Messenger

Address <http://www.usask.ca/education/coursework/skaalid/theory/gestalt/gestalt.htm> Go Links >>

Web Design for Instruction

[Design Theory](#)

Gestalt Principles of Perception

[Site Design](#)

[Page Design](#)

[MultiMedia](#)

[Teacher Resources](#)

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[Home Page](#)

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Gestalt Principles of Perception

Gestalt theory first arose in 1890 as a reaction to the prevalent psychological theory of the time - atomism. Atomism examined parts of things with the idea that these parts could then be put back together to make wholes. Atomists believed the nature of things to be absolute and not dependent on context. Gestalt theorists, on the other hand, were intrigued by the way our mind perceives wholes out of incomplete elements [1, 2]. "To the Gestaltists, things are affected by where they are and by what surrounds them...so that things are better described as "more than the sum of their parts."" [1, p. 49]. Gestaltists believed that context was very important in perception. An essay by Christian von Ehrenfels discussed this belief using a musical example. Take a 12 note melody. Play it in one key, say the key of C. Now change to another key, say the key of A flat. There might not be any notes the same in the two songs, yet a person listening to it knows that it is the same tune. It is the relationships between the notes that give us the tune, the whole, not which notes make up the tune.

Gestalt Principles:

- [Figure and Ground](#)
- [Similarity, Proximity or Contiguity, Continuity](#)
- [Closure, Area, Symmetry](#)

If you are interested in reading about how to apply gestalt theory to the design of more readable technical diagrams, check out an article by Moore & Fitz [3]. This article is very interesting, because it starts with a very poorly designed diagram and by using gestalt principles, transforms it into one which is much more useful.

[1] Behrens, R. (1984). *Design in the visual arts*. Englewood Cliffs, NJ: Prentice-Hall, Inc.

[2] Mullet, K. & Sano, D. (1995). *Designing visual interfaces: Communication oriented techniques*. Englewood Cliffs, NJ: Prentice Hall

[3] Moore, P. & Fitz, C. (1993). Gestalt theory and instructional design. *Journal of Technical Writing and Communication*, 23(2), 137-157.

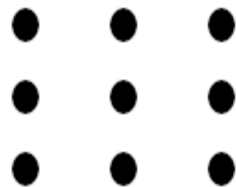
Theory: [Classic Graphic Design Theory](#) [Gestalt Theory of Perception](#) [Human Computer Interface Design](#)

Main Level: [Home Page](#) [Design Theory](#) [Site Design](#) [Page Design](#) [MultiMedia](#) [Teacher Resources](#) [Table of Contents](#)

Start | Eudora - [In] | C:\mydata\470\Website... | Microsoft PowerPoint - [...] | Gestalt Principles of P... | 8:40 PM

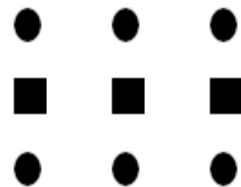
Gestalt Principles (con't)

Proximity



(We organize nearby objects together. Thus, you should see columns because the dots in columns are closer than the dots in rows.)

Similarity



(We organize together objects that are similar in shape. Thus, you should see rows instead of columns.)

Good Continuation

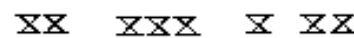


(We organize lines to minimize abrupt changes. Thus, you should see the curved line as one, with a straight diagonal line cutting through it.)

Closure



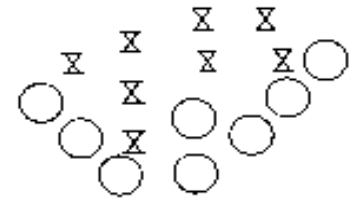
(We organize lines to create whole figures when possible. Thus, you should organize this figure as a square in spite of the gap.)



Proximity



Closure



Similarity



Good continuation



Symmetry



Simplicity

Different projections of the same cube are perceived as either a two or a three-dimensional object depending on which is the simpler interpretation.

Website Design/Implementation Process

[see appendix]

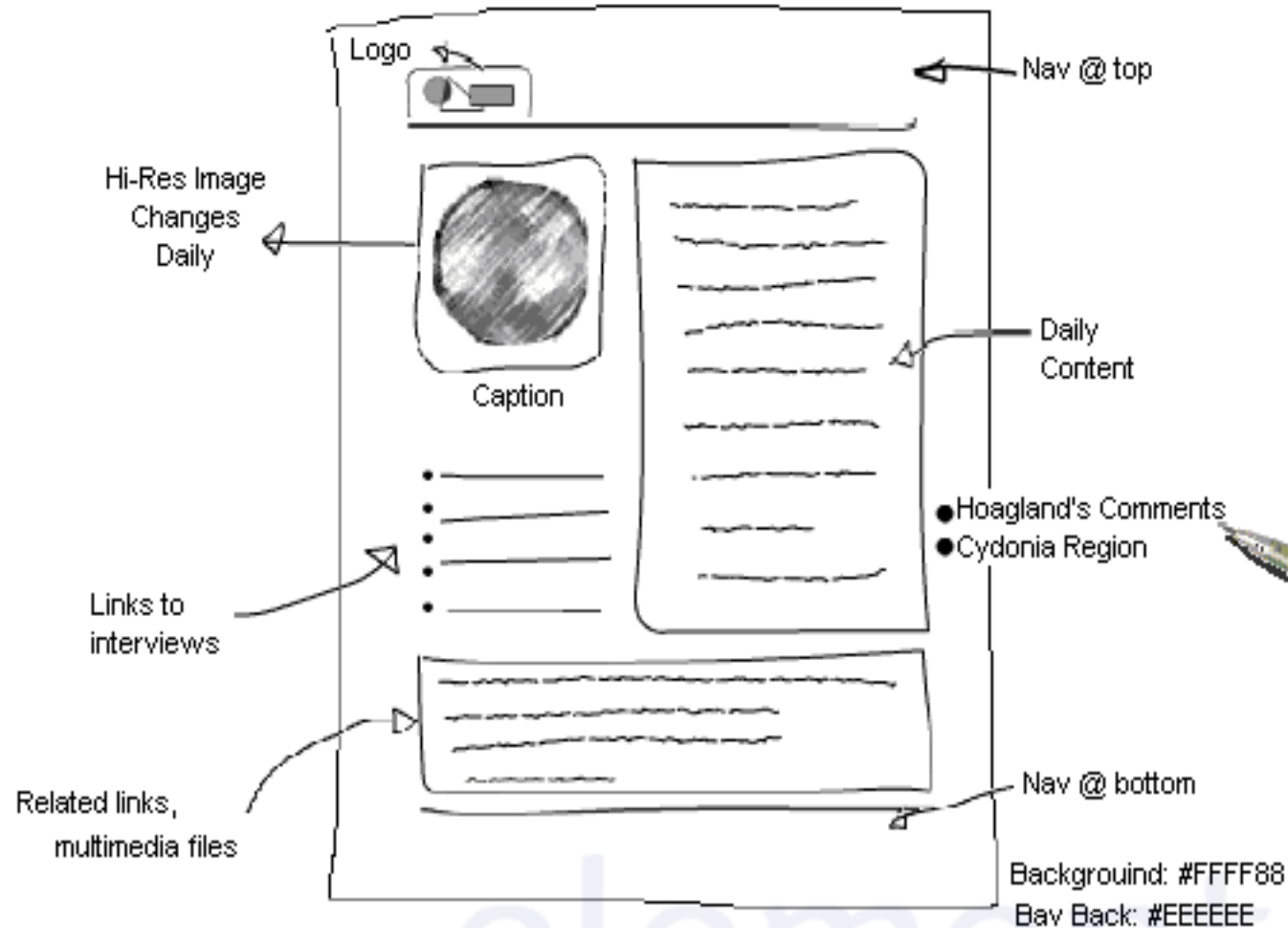
- Overall planning and design (content & layout)
- User scenarios (from requirements & interviews)
- Storyboards (and focus group review thereof)
- Common “look & feel”
 - Common navigation
 - Common background, images, color, fonts, etc.
- Detail page design
- Page implementation & testing
- Focus group review

Storyboarding – “paper prototypes”

- "Storyboarding" is an expression born of the film and cartoon industry, where producers would draft out the sequence of scenes on separate boards (depicting a scene, the characters in the scene, their dialogue, and the scenery and sounds for that scene).
- Stepping back and looking at the storyboard provides a general sense of what the viewer will learn from frame to frame, and what the viewer might expect from the next frame.
- A storyboard doesn't have to be a work of art, it can simply be a series of sketches of pages as you envision them.
- A storyboard doesn't necessarily have to represent the eventual design of each page, but should include enough detail to allow you or your team to build from it.
- Typically, storyboarding helps reveal what resources will be required in the project, the content involved on each page, and the site's general navigational sequence and structure.

Storyboard #1 of 20

"Exploring Mars"



Standing Out from the Crowd

- Statement of purpose
 - Who are you (ie “About us” not “About IBM”)
 - Whom do you hope to reach
 - **How are you different from competitors**
- Offer something for free - surfers today may expect that
 - “Giveaways” (T-shirts, pens, ...)
 - Sample product or “trials”
 - Contests
- Consider “niche” areas with higher markup instead of volume
- Booster your international acceptance – discussed later in the course



Getting Attention



“Brand”

- A company's “brand” is the sum of all the experiences the current and intended customers have with the company
- Today, the web site is a critical part of that “brand”
 - WWW identity – “logo”
 - Navigation
 - Appearance
 - On line capabilities
 - Total web presence including - use of social media

Web Logo

- Distinctive
- Conveys “identity”
- Device independent colors (browser safe) & backgrounds (since it may be used on other's sites for linkage)
- Is “reducible”
- Well balanced and mostly geometric

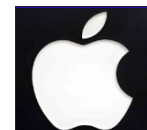
INTERNATIONAL  PAPER



FedEx®

AutoZone

Harrah's



AVIS® We try harder.

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Easy-to-make logos in different styles from all types of businesses. Loads of idea starters. Get inspired, get going!

60 Second Demo



Make a FREE logo!



[Make a FREE Logo.](#)
It's easy to make a professional-looking logo in minutes. Find out FREE. Launch your business and branding with a great logo!

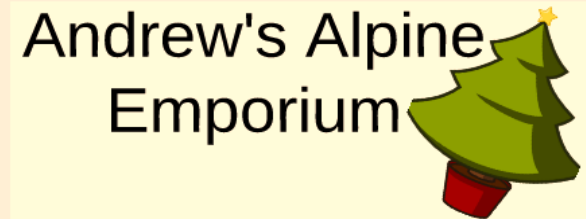
[View previous winners](#)

Make a logo, win a custom T-Shirt.

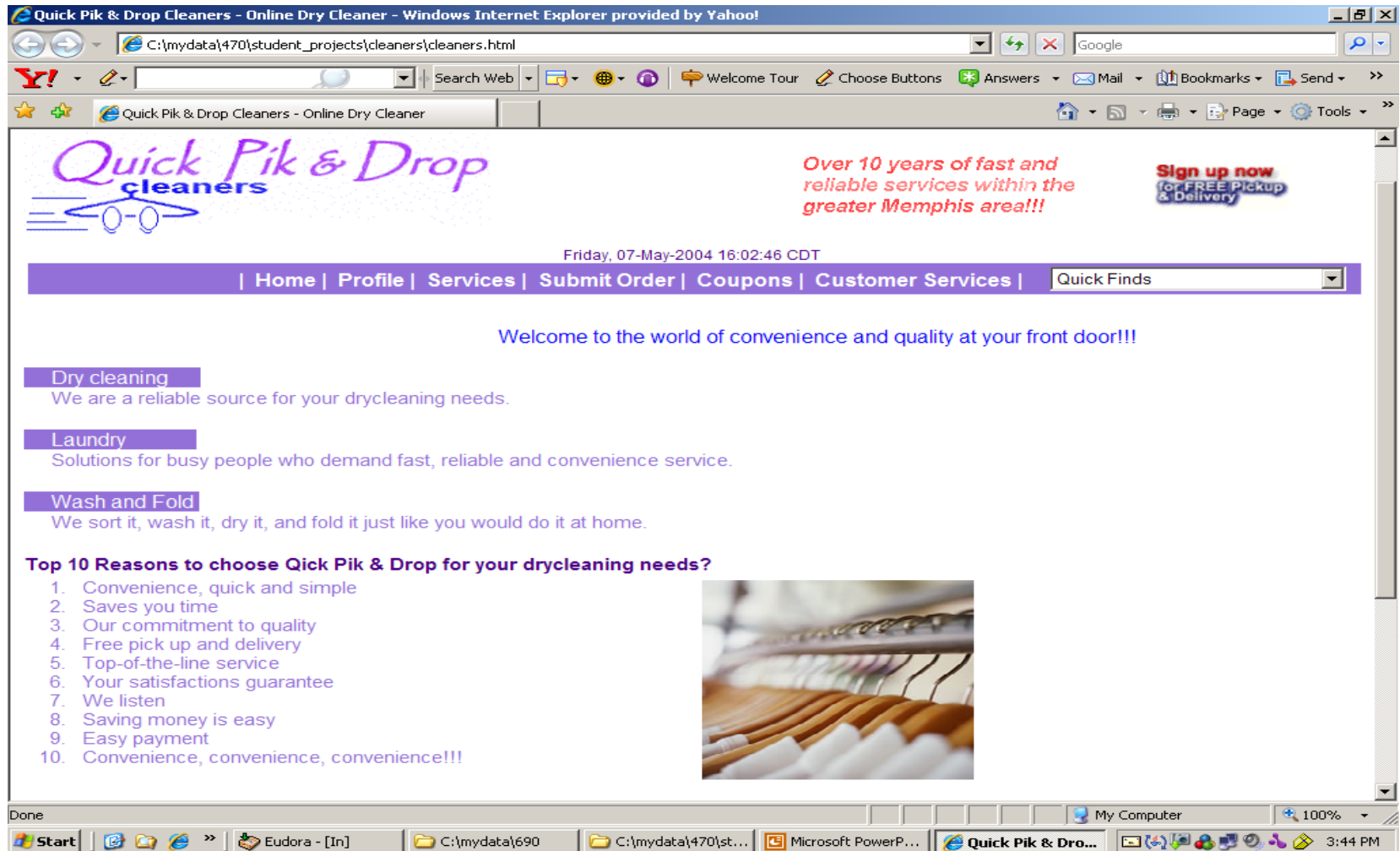
Make a free logo, post on Facebook and have your friends like. Get the most likes and win a custom T-Shirt with your new logo. Get started!.

We'll help you win! Tips, links, tools and more - find it all on our Love My Logo! contest page. But first make your free logo here.

Example Student Project Logos



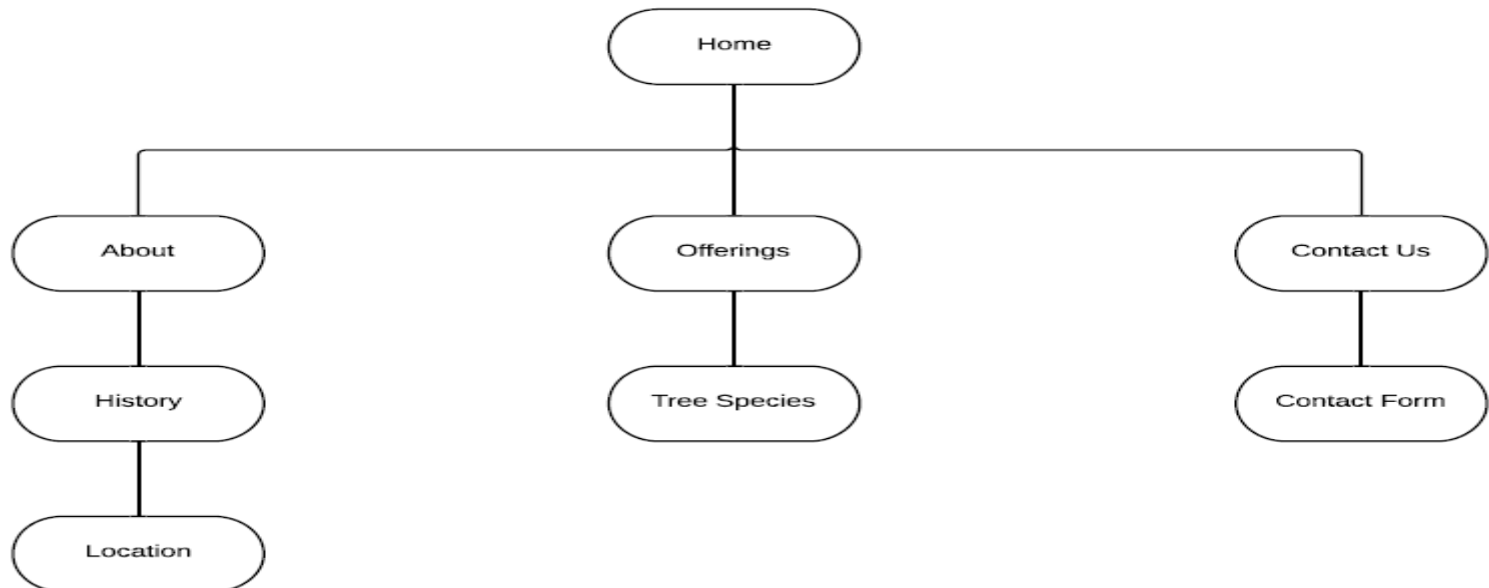
Project Using Logo



Andrew's Alpine Emporium



Andrew's Alpine Emporium



Andrew's Alpine Emporium

[Home](#)[About](#)[Products](#)[Contact](#)

Welcome to Andrew's Alpine EmporiumThe storm burst upon us six years ago now. As Mars approached opposition, Lavelle of Java set the wires of the astronomical exchange palpitating with the amazing intelligence of a huge outbreak of incandescent gas upon the planet. It had occurred towards midnight of the twelfth; and the spectroscope, to which he had at once resorted, indicated a mass of flaming gas, chiefly hydrogen, moving with an enormous velocity towards this earth. This jet of fire had become invisible about a quarter past twelve. He compared it to a colossal puff of flame suddenly and violently

Andrew's Alpine Emporium

[Home](#)[About](#)[Products](#)[Contact](#)

Andrew's Alpine emporium started in...

Passepartout, who heard what passed, would willingly have embraced the pilot, while Fix would have been glad to twist his neck. "What is the steamer's name?" asked Mr. Fog. "The Camatic." "Ought she not to have gone yesterday?" "Yes, sir; but they had to repair one of her boilers, and so her departure was postponed till to-morrow." "Thank you," returned Mr. Fog, descending mathematically to the saloon. Passepartout clasped the pilot's hand and shook it heartily in his delight, exclaiming, "Pilot, you are the best of good fellows!" The pilot probably does not know to this day why his responses won him this enthusiastic greeting. He remounted the bridge, and guided the steamer through the flotilla of junks, tankas, and fishing boats which crowd the harbour of Hong Kong. At one o'clock the Rangoon was at the quay, and the passengers were going ashore. Chance had strangely favoured Phileas Fogg, for had not the Camatic been forced to lie over for repairing her boilers.



Andrew's Alpine Emporium

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Tree Type 1



Tree Type 2



Andrew's Alpine Emporium

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Site Metaphor



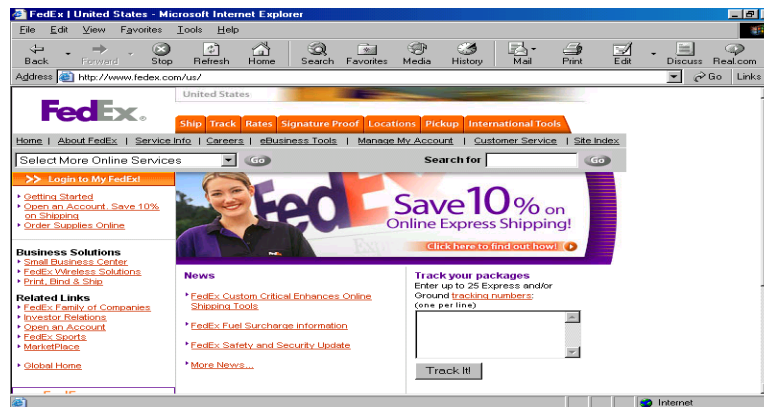
- A site metaphor, often referred to as the *cognitive design*, can also enhance a site's message and reinforce the identity or "brand" the site seeks to convey
- Not every site needs one, but a common theme throughout a site provides a framework in which to create a more consistent design and effective navigation scheme that can also increase interest and immersion in a site
- For example, the monster.com-given its name-uses a monster theme throughout its site
 - The theme is primarily graphical-practically every image on the site is a monster or a part of one
 - Each section or area of interest features a different creature or an eyeball or a similar monster-inspired label
 - This metaphor probably wouldn't work for an investment or world news site, but it has certainly worked for monster.com, one of the biggest and most popular job-hunting and referral services on the Web
- Often, the graphical approach is combined with a style of writing, as it is to a small degree on monster.com, with links that read, "Chief Monster", "Monster Talent Market", and "Monster Moving"

Basic Design Guidelines

- Limit page length to at most 3 screens
 - I prefer 1 to avoid scrolling
- Place logo in upper left hand corner
- Place a search box in a top corner
- Limit download time to under 1 second
- Colors: Black for text, white for background, blue for links (purple for visited links); other colors for special attention

Basic Design Guidelines (con't)

- Use graphics tuned to your audience
 - if you are selling skateboards, bright and neon colors with flashy images are appropriate
 - If you are selling insurance to senior citizens, conservative colors and sophisticated fonts would be appropriate
 - Conservative : www.ups.com
 - Modern: www.fedex.com
 - Bold: www.hothothot.com



Basic Design Guidelines (con't)

- Provide forward and backward navigation buttons, as well as a “home” button on each page
- If using images/photos for linking, provide an alternative text link
- Consider a common “footer” for all your pages with common links (can implement via CSS, “Server Side Includes” or API Include/Require - discussed later)



KISS (Keep it simple)

- Surfers today don't really "read" your content in the traditional way (linear top left to bottom right); they are usually in a hurry and click and browse
- Point the way with headings
- Use lists
- Lead the readers on with links:
 - More...
 - Next...
 - Details...
- Provide "search" capabilities if there is much content and many links



Loading Speed

- If your main page takes more than **3 seconds** to load, then many visitors will either leave or have an initial bad impression of your site
- Most designers think that a page with a total file size of 35 KB is the limit - that's 35 KB for everything; images, HTML, scripts, and content
- Keep all images 20k or less in size
 - Use cropping, and color and content (resolution) reduction if necessary
 - Pay attention to previous hints and methods discussed for images (ie pre-loading)
 - If you need to use large graphics, consider the interlaced GIF or progressive JPEG file formats. You can also provide thumbnails; small versions of the image that are linked to the full-sized version on a separate page.
- **Remember that search engines do not look at images, only text !**

Personalization

- Let your customers “know you”, your corporate culture, your staff, etc.
- Try to develop a “one-to-one” relationship with your customers by tuning your site to their interests and inviting a dialogue and interaction with both you and others with similar interest
- Use “cookies” and databases to learn and store customer preferences
- Invite feedback
- Link to social media (“likes”, etc.)

Consistent Appearance and Behavior

- All your web pages should have a consistent “look and feel”, a common “template”
- Choose one “wallpaper” , “tiled” image, or or background color for all pages
- Select a consistent font (or use the browser default) throughout
- Use common code for all pages
 - style sheet (*.css)
 - Javascript functions (*.js)
 - common static or dynamic HTML (server side includes or API includes (discussed later))
- Have a consistent linking methodology

Common Problems in Web Design

- Avoid background images that tile across your page unless the image is a simple band of color that you need for a navigation bar along the top or left side of your page
- In general, avoid using white text on a black/dark background - it can strain the eyes of your visitors
- With little exception, background music is an unnecessary nuisance (it's probably not wise to assume that your users will want to hear what you want to play for them)
- Minimize, your use of animated GIFs and other animations
 - A well-designed, well-placed animation can be a successful add-on to a page; it will certainly draw the eye to it immediately, which can work to your benefit if it's used to advertise an important feature or piece of content. But many sites over-use animations, which can be dizzying and can wreck your otherwise good download time.

Common Problems in Web Design (con't)

- If you provide a link to a downloadable file, be sure to indicate the size of the file, and the file type
 - No one likes to start downloading a file, step away for a cup of coffee, and return two minutes later to find that the file is only 5% complete
- It's easy for the new designer to get carried away with color, using excessive colors arbitrarily and often to suit personal tastes
- Color is a powerful design tool that should be given special attention in the design process - too many colors scattered on a page or throughout a site can confuse or distract users
- Like color, the fonts you use can have a huge impact on your design - too many different font faces can muddle the design and make text difficult to read

Common Problems in Web Design (con't)

- Unless your Web site is designed as a purely visual experience and not a content resource, avoid using splash pages - they often create needless waiting periods before users can proceed toward the information they came for
- Avoid pop-up windows unless the content within is best displayed that way
 - Pop-up windows can be irritating to many users, since they didn't ask for a new window and they're most commonly used to display an ad or some irrelevant information
- It's generally not a good idea to ask your visitors to do work just to view your site, such as adjusting the size of the browser window, scrolling, downloading the latest browser version, changing screen resolution, set browser preferences, etc.
- If your design is this dependent on user settings, you should probably take the site back to the drawing board

Evaluation Questions

- How images are used
 - Are the images well-designed? Do they communicate successfully?
- How content is presented
 - Is the content easy to read? Is it informative or irrelevant?
- Are the links well-organized?
 - Does the link text adequately represent the content of the destination page?
- How is color used?
 - Does it add to the site's appeal and usability, or is it distracting?
- Does the structure of the site make logical sense?
- Are there any elements that provide no useful information (is there anything that you would describe as a "waste of space")?
- Does the layout of each page make the content easier to access and visually organize?

Landsend Example

LANDSEND.COM: Example of a good home page

The screenshot shows the Landsend.com homepage with several key elements highlighted by red lines and dots:

- Navigation Bar:** Includes links for Shopping Bag, Checkout, My Account, My Order, Pleasant Shoppers, Ask Us, Welcome, Women's, Men's, Kids', For the Home, Luggage, and Gifts.
- Search Bar:** Located on the left side, with a search button.
- Product Promotion:** A large section titled "50 stars. 13 stripes. 10 dollars." featuring a family photo and details about the American Flag Tee for Adults and Kids.
- Customization Option:** A section titled "Lands' End Custom™" with a link to "Design your own Custom Family right here".
- Subscription:** A "Subscribe!" section with a link to "Send Special Offers your email address to subscribe".
- Product Shot:** A small image of a baseball cap with the text "Celebrate an all-American summer!" and "Here's your headquarters for summer Americana. Like this classy embroidered USA Cap, with vent eyelets and adjustable visor."
- Major League Baseball Collection:** A section titled "Lands' End Major League Baseball® Collection" with a link to "Lands' End Major League Baseball® Collection".
- Contact Us:** A section titled "Contact Us" with a link to "We're here to help - by phone or email".
- Business Outfitters:** A section titled "Business Outfitters: Corporate Sales" with a link to "Business Outfitters: quality logos, corporate gifts and more".

Upper right is becoming standard placement for "Help." ("Ask Us" is less direct.)

Logo is in upper left, where shoppers expect to see it.

Color is used sparingly, for emphasis.

Product shots are the dominant graphics used.

Links are clearly identified and change color after they're followed.

International customers are offered the option of shopping in their own language.

Signing in offers specific benefits; it's not just a user task.

Search defaults to an option that searches everything.

“Drill-Down” For Detail

MACYS.COM: Zooming in for detail helps shoppers

1 From the list on the left, select "sweaters."

2 Choose a sweater.

3 Click on it and zoom in to show detail.

Macys.com allows the shopper to zoom in to see the fabric weave of its sweaters.

The screenshots show the macys.com interface. The first screenshot shows a 'WOMEN' category with a list of clothing items. The second screenshot shows a specific sweater selected. The third screenshot shows a zoomed-in view of the sweater's fabric texture, with a 'CLICK HERE TO SEE MORE' button.

User Testing

- Involve potential users early in your design process, to see how they will like the approach and “look and feel” of your site
- If you cannot get to users early, at least use some peers
- Set up a formal “focus group”, and let the group review your site through all stages of design and implementation
- Focus groups should consists of the “targeted” demographics
- Test in all relevant browsers, screen resolutions, platforms, connection speeds, etc.

Focus Groups

- Locate a representative sample of your target audience
- If your site is targeted to intranet users, gather together a group of employees who will use the site and ask them to help you critique it
- Ask them to locate particular items and/or do certain tasks that you know are present on the site and determine how long, on average, it takes these users to find it
- Watch them as they move through the site-the way they use your site will answer a lot of questions, like:
 - Is the navigation consistent and intuitive?
 - Are there places where people get hung up?
 - Do they tend to follow paths other than the ones you intended?
 - Do users seem to get lost in the site's navigation?
 - Could they easily find what they were looking for?
 - How long did it take for users to find what they were looking for?
 - Could they repeat it the next day in any less time?
 - Is the type legible against the background?
 - If you're selling products from your site, could they complete transactions confidently without having to deal with confusing detours?

Testing Browser Compatibility and Screen Size

www.AnyBrowser.com



Tips for Effective Web Design

- **Start with a Grid:** When creating a design, fluid grids are best because they can scale proportionately. If you use this system properly, you can get great results. As a starting point, consider grids for the three major browser types, which are: 1000 pixels or more for wide screen monitors, or a minimum of 768, 480 to 768, and 320 to 480. To get a feeling for grids and how they can help you, [check out Bootstrap](#).
- **Make Sure Everything is Flexible:** Since there are many options, this can be a huge advantage. You can test out many designs, fonts, images, etc., until you find something that works.
- **Use Media Queries:** Media queries are relatively easy to use and they can deliver different styles to the various devices through CSS. Media queries make it simple to support multiple layouts. As for breakpoints, here are some common measurements to test out: 320, 480, 600, 768, 900, and 1200 pixels. It's also a good idea to use percentages for size adjustments. This can create more flexible and more user friendly for various devices and screen sizes.
- **Clean Design:** One thing that will make or break a site is the design. All elements must be considered. Details such as fonts, logos, how the text is displayed, readability, white space, etc. are important. If the site experience is poor, users will abandon your site.
- **Navigation:** Along with clean design, navigation is important. The navigation must be constructed of type that is easy to read, of high contrast and the backgrounds should also reflect that. In addition, using few headings is advisable. Also, when possible, keep drop down menus to a minimum, partly because drop down menus don't work well with touch screens.
- **Responsive Type:** When thinking about type one needs to realize the eye can only handle a certain number of letters and breaks. When you're creating a layout, it's important to optimize your type for screen width. Other issues are spacing between letters, above, below and to the side. Spacing above and below is important. If the letters are too close, they could overlap or seem 'tight' in terms of readability. If you have any doubts, test the fonts on each device. Novelty fonts or dramatic lettering might look great on a desktop but the same font could look terrible on mobile. Type needs room to breathe and on a small screen it's even more important; a small size, your best fonts are normal sans serif styles with even strokes.

Tips (con't)

- **Short Loading Times:** Short loading times are essential on all devices. If your pages take too long to load, you will lose your audience. Some ways to ensure your pages load quickly are clean code, minifying your code so it loads faster, minimal use of plug-ins if you're using a CMS, and images that load quickly for each device.
- **Use Multiple Image Formats:** This step is essential. Contrary to what some people may tell you, one size does not fit all. In other words, using one image size and making use of scaling is a big mistake. At minimum, you need to format images for at least three browser formats. And when you do so, make sure you use JPEG for images, not PNG, because PNG can bloat your file sizes by 5-10 times. If your images are made up of text or line drawings, use GIF or PNG-8. These file formats will give you the best results.
- **Effective Security:** Good security is essential, to prevent hackers from breaking into your site and wreaking havoc. This is less important if you have built a simple site using programs such as Adobe Muse. However, if your site is built using a CMS such as WordPress, good security is essential. At minimum, you need to install the following plug-ins, IThemes Security, Updraft Plus, and Wordfence.
- **Captcha Tests:** These are becoming more popular to prevent bots from spamming a site. Bots can quickly use up your bandwidth. Captcha tests will stop that from happening. Another way of dealing with the problem is to write out email addresses as johntony AT yourhost DOT com. It's inconvenient for users, though it will eliminate the spam problem.

Bootstrap Templates

w3schools.com

THE WORLD'S LARGEST WE

HTML CSS JAVASCRIPT SQL PHP **BOOTSTRAP** HOW TO JQUERY MORE ▾ REFERENCES ▾ EX

BS Collapse
BS Tabs/Pills
BS Navbar
BS Forms
BS Inputs
BS Inputs 2
BS Input Sizing
BS Media Objects
BS Carousel
BS Modal
BS Tooltip
BS Popover
BS Scrollspy
BS Affix
BS Filters

Bootstrap Grids

BS Grid System
BS Stacked/Horizontal
BS Grid Small
BS Grid Medium
BS Grid Large
BS Grid Examples

Bootstrap Themes

BS Templates
BS Theme "Simply Me"
BS Theme "Company"
BS Theme "Band"

Make your
website
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Bootstrap Templates

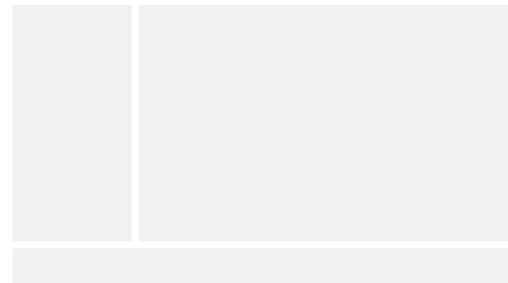
◀ Previous

Next ▶

W3Schools' Bootstrap Templates

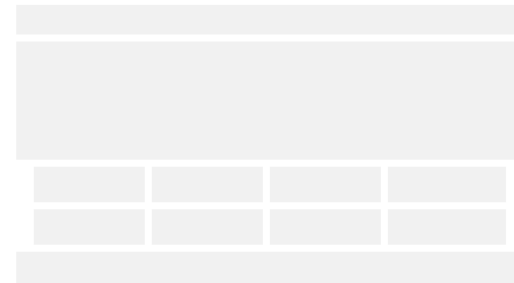
We have used Bootstrap's grid system to create some responsive HTML templates. They are completely free - Click on "Try It Yourself" to see the code and do whatever you want with it:

Blog:



[Try it Yourself »](#)

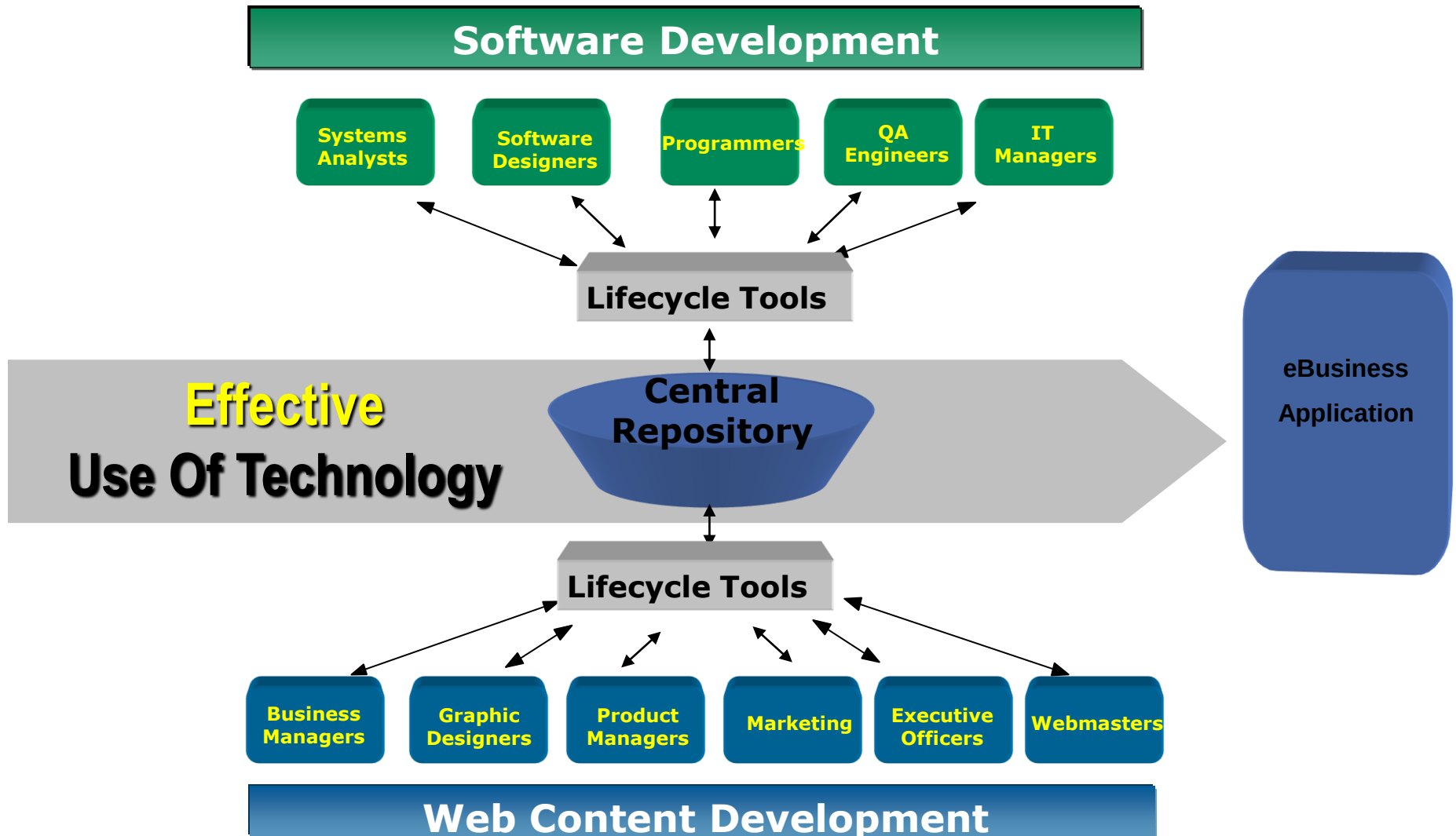
Portfolio:



[Try it Yourself »](#)

Modern Web Development Environment

[Program Design/Coding as well as Content Management]



Modern Web Development Environment



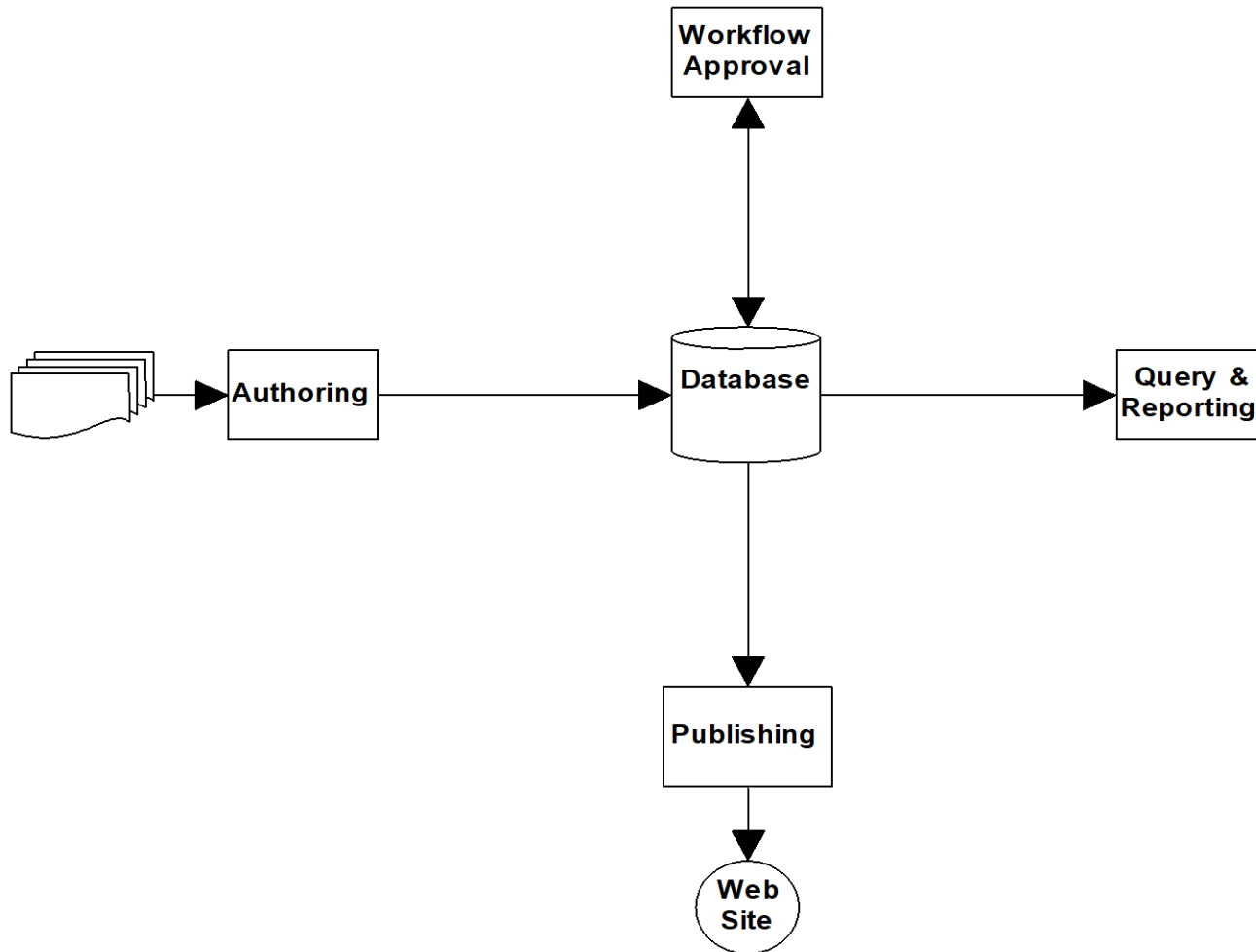
Content Management

- With a couple of web pages and a couple of developers, it is easy to maintain a web site
- Now imagine a web site with
 - Hundreds of pages
 - Many developers with different skill specialties
 - Many of the pages rely on dynamic data stored in a database, some of which rely on current conditions (exchange rates, weather, traffic, etc)
 - With data and content needing to be constantly upgraded in time (and approved by various levels of management)
 - and perhaps, with content needing to be understandable in many locations and languages !!

Content Management Software Systems

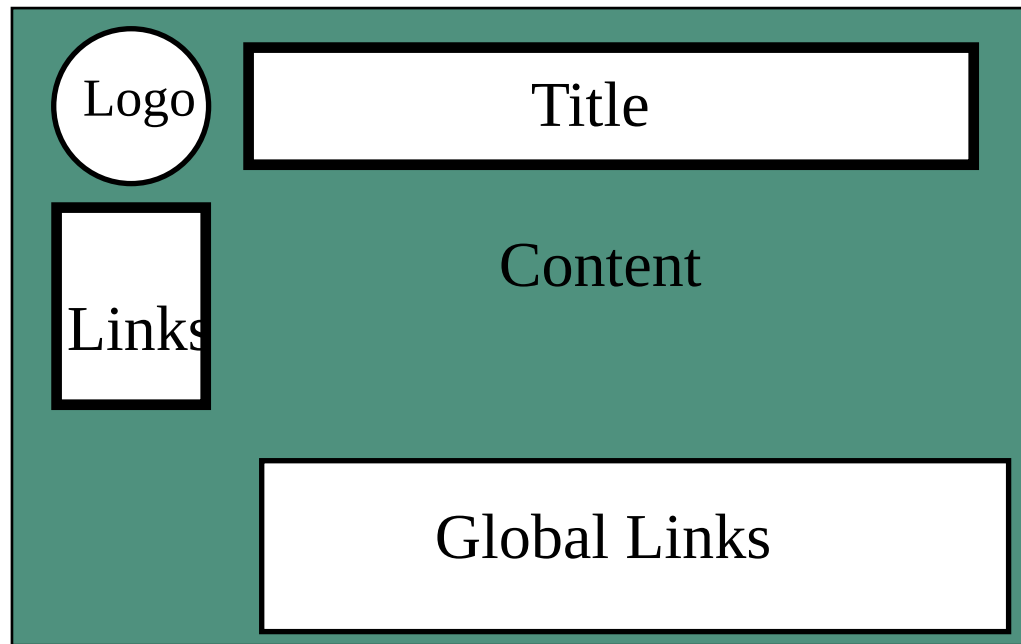
- Provides for:
 - Template design (common styles)
 - Page generation (from multiple sources)
 - Workflow management (approval of content)
 - Database storage of all components including raw data (ie product info)
 - Publishing to many platforms: pc, Mac, laptop, tablet, smartphone
 - Publishing to many formats (standard web, printed forms [ie Acrobat], WAP/PDA, etc.)
 - Personalization
 - Globalization/Localization (discussed later in course)

Content Management Systems



Page Design

- Design Layout
- Use Standard “Templates”

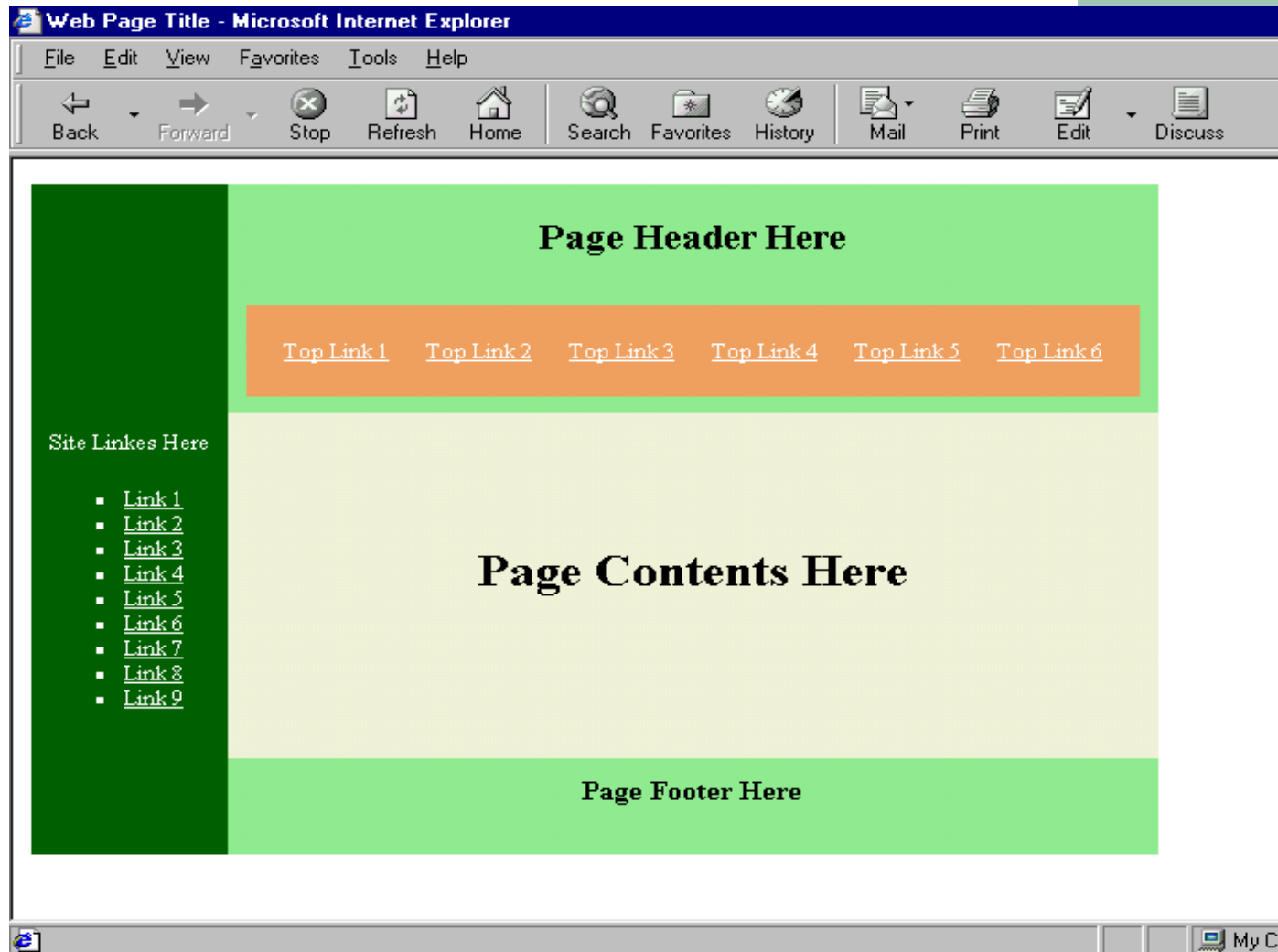


Standard Templates

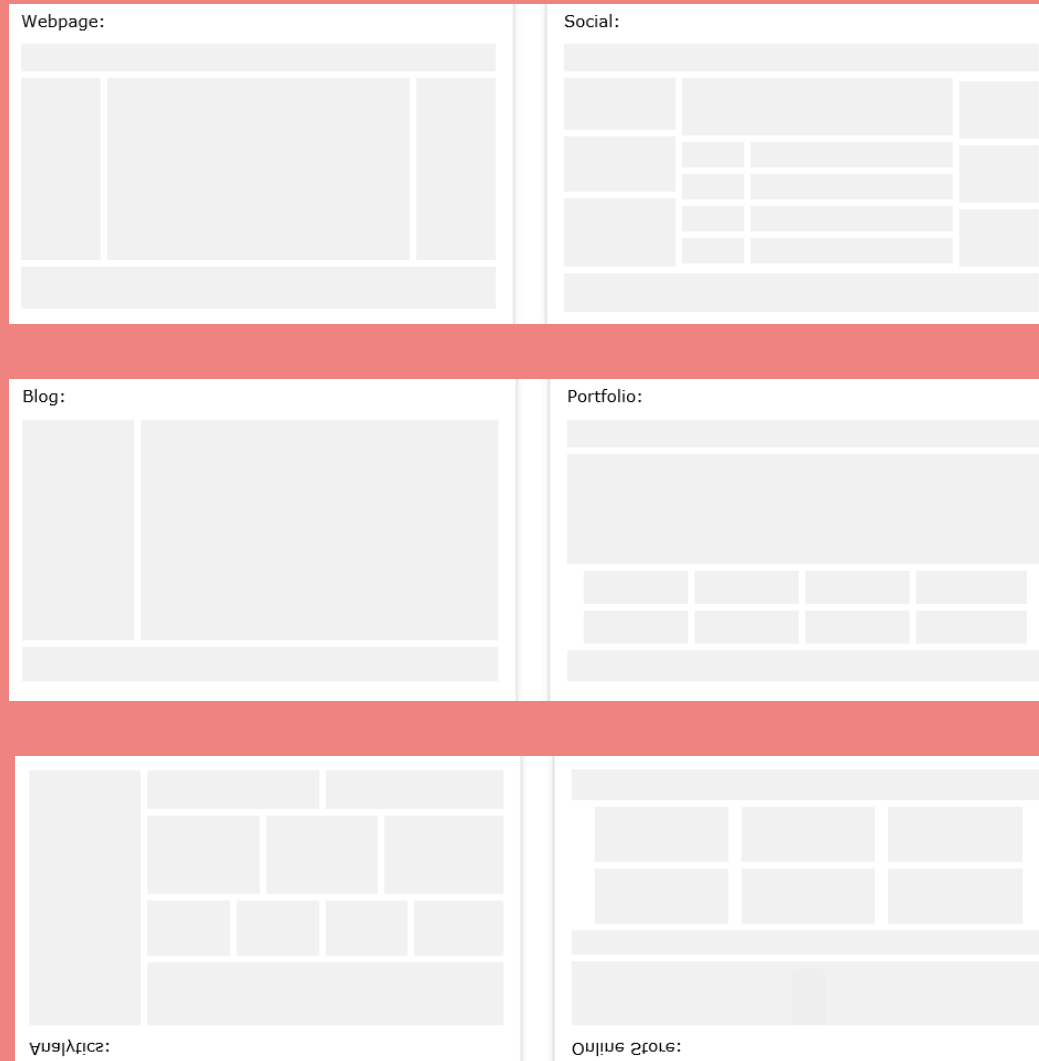
- Implemented with CSS (style sheets), Meta tags, server side includes, API “include/require”
- Provide:
 - Standard layout
 - Standard background (colors & images)
 - Standard “header”
 - Standard “footer”
 - Standard navigation bars
 - “Content Sections” where content is placed
- Can be built with tool in content management software or imported from manually constructed files (html, css, etc.) or imported from wysiwyg editors like Dreamweaver

Example Manually Created Standard Template

[for all web pages in a web site, std_template.html]



Common Bootstrap Templates



Code for Bootstrap Webpage Template

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
</head>
<style>
  /* Remove the navbar's default margin-bottom and rounded borders */
  .navbar {
    margin-bottom: 0;
    border-radius: 0;
  }

  /* Set height of the grid so .sidenav can be 100% (adjust as needed) */
  .row.content (height: 450px)

  /* Set gray background color and 100% height */
  .sidenav {
    padding-top: 20px;
    background-color: #f1f3f4;
    height: 100%;
  }

  /* Set black background color, white text and some padding */
  .footer {
    background-color: #555;
    color: white;
    padding: 15px;
  }

  /* On small screens, set height to 'auto' for sidenav and grid */
  @media screen and (max-width: 767px) {
    .sidenav {
      height: auto;
      padding: 15px;
    }
    .row.content (height:auto)
  }
</style>
</head>
<body>

<nav class="navbar navbar-inverse">
  <div class="container-fluid">
    <div class="navbar-header">
      <button type="button" class="navbar-toggle" data-toggle="collapse" data-target=".myNavbar">
        <span class="icon-bar"></span>
        <span class="icon-bar"></span>
        <span class="icon-bar"></span>
      </button>
      <a class="navbar-brand" href="#">Logo</a>
    </div>
    <div class="collapse navbar-collapse" id="myNavbar">
      <ul class="nav navbar-nav">
        <li class="active"><a href="#">Home</a></li>
        <li><a href="#">About</a></li>
        <li><a href="#">Projects</a></li>
        <li><a href="#">Contact</a></li>
      </ul>
      <ul class="nav navbar-nav navbar-right">
        <li><a href="#"><span class="glyphicon glyphicon-log-in"></span> Login</a></li>
      </ul>
    </div>
  </div>
</nav>

<div class="container-fluid text-center">
  <div class="row content">
    <div class="col-sm-2 sidenav">
      <p><a href="#">Link</a></p>
      <p><a href="#">Link</a></p>
      <p><a href="#">Link</a></p>
    </div>
    <div class="col-sm-8 text-left">
      <h1>Welcome</h1>
      <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.</p>
    </div>
  </div>
  <div class="col-sm-2 sidenav">
    <div class="well">
      <p>ADS</p>
    </div>
    <div class="well">
      <p>ADS</p>
    </div>
  </div>
</div>

<div class="container-fluid text-center">
  <p>Footer Text</p>
</div>

</body>
</html>
```



Content Management

- Where it comes from (.html, .doc, .ppt, .pdf, .avi, etc.)
- Who creates it
- Who inputs it
- Who sees it
- Who approves it
- Who publishes it
- Where is it published to (web sites, wireless web networks, printed manuals/catalogs, etc.)

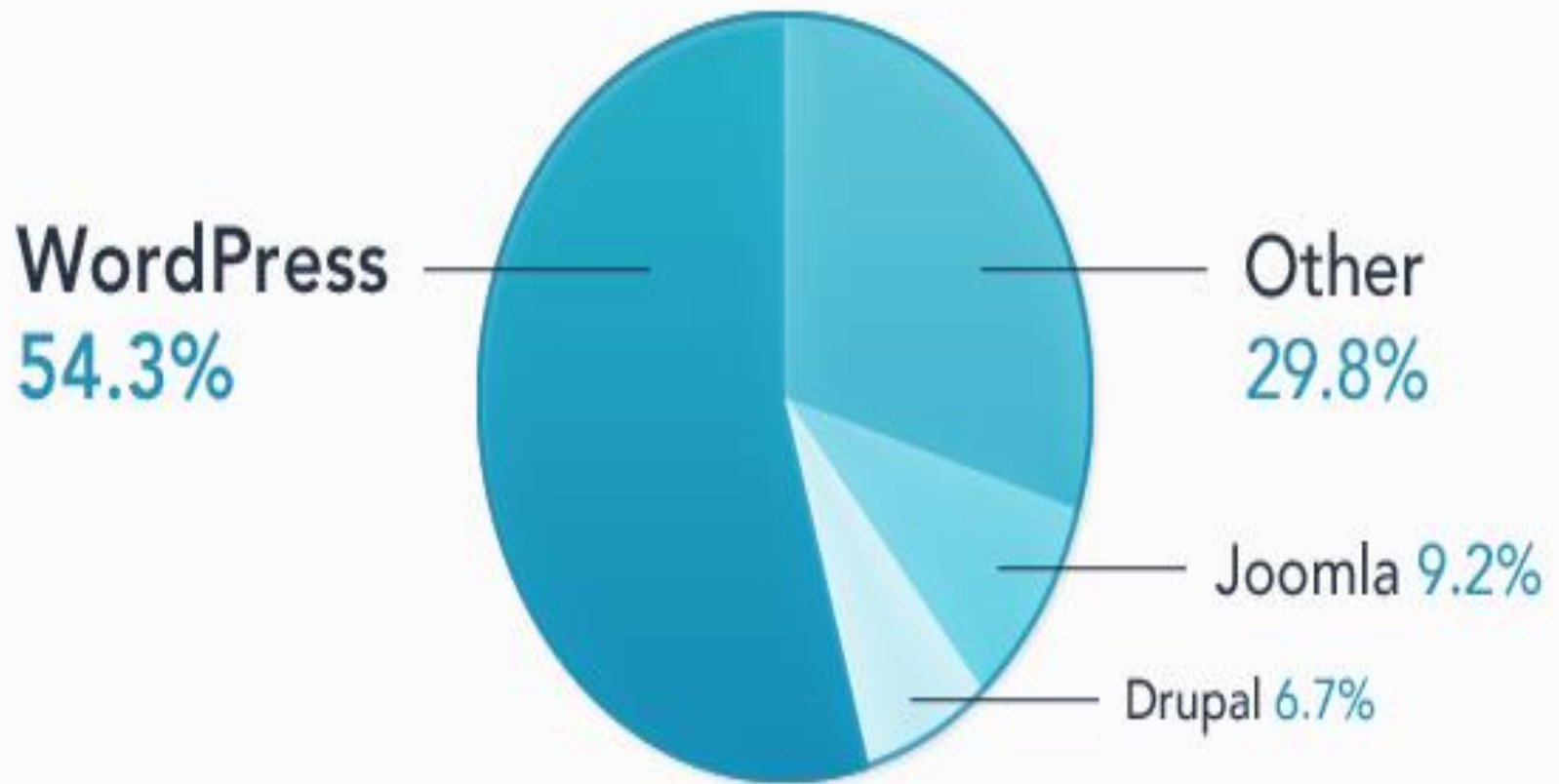
How Content Management Systems Work

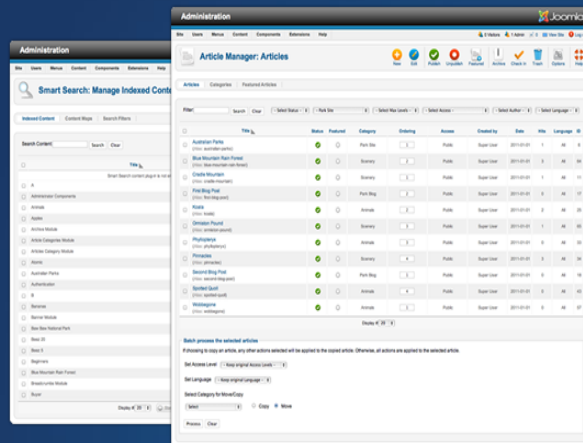
- 1. A request comes in from management for a new page or an update to existing page(s)
- 2. A design template is chosen from the company “standard” templates
- 3. The content is created or edited using one of a variety of supported input formats (html, Word, PowerPoint, Acrobat, etc.)
- 4. The template is applied to the content and the result is stored in the site database (the database also has browse and reporting capabilities, and also “check-in/check-out”, versioning, and access rights capabilities)
- 5. Workflow approval is enforced for new/modified content
- 6. The content is published to the web site (or typically to a test web site first) and possibly to “partner” sites (“syndication”); some to PDA’s and SmartPhone devices

Content Management Technology

- Best to choose a system built on “open standards” such as XML, Java, PHP, or Python
- Most systems generate necessary HTML from the content stored in a database; choose a system with an open or standard database product
- New versions of many products include or integrate with E-Commerce tools
- Basic (can also be used to generate templates for advanced products):
 - Microsoft SharePoint or WordPress
 - Macromedia Dreamweaver
- Product starting prices may range from \$2000 to \$100,000 for basic systems, with the most advanced systems starting at \$1,000,000
- Open source products (Drupal, Joomla)

Content Management Systems





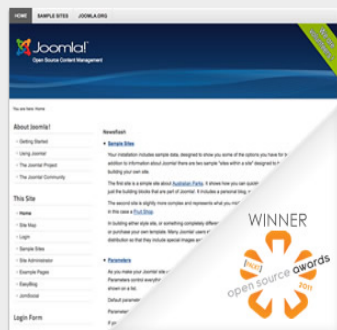
Joomla is one of the world's most popular open source CMS (content management system). With millions of websites running on Joomla, the software is used by individuals, small & medium-sized businesses, and large organizations worldwide to easily create & build a variety of websites & web-enabled applications.

[Find out more about Joomla! 2.5](#)

Download

Demo

JOOMLA! IS EXACTLY WHAT YOU NEED IT TO BE



Infinite Possibilities

Dreaming of building a website you can edit yourself? Want an easier solution to rapidly deploy client sites? Looking for an intranet that will empower your employees. Look no further.

Joomla gives you the tools and power to build standard sites, directories, intranets, social networks, shopping carts, and so much more...

READ MORE

JOOMLA ANNOUNCEMENTS

Joomla! 2.5 Released with Extra Features and Easy Updates

Joomla, one of the world's most popular open source content management systems (CMS) used for everything from websites to blogs to Intranets, today announces the immediate availability of Joomla 2.5. Along with new features such...

Joomla 2.5.0 Released

The Joomla Project is pleased to announce the immediate availability of Joomla 2.5.0. This is a security release. Version 2.5.0 is the next update from version 1.7. (Note that we have skipped from version...

Joomla 1.7.4 Released

The Joomla Project is pleased to announce the immediate availability of Joomla 1.7.4. This is a security release. Note that most users should update their sites to version 2.5.0 instead, which is now released. Version 1.7.4...

LOOK WHO'S USING JOOMLA!



BARNES & NOBLE



IKEA



View more companies using Joomla! | View 3000+ governments using Joomla!



Come for the software, stay for the community

Drupal is an open source content management platform powering millions of websites and applications. It's built, used, and supported by an active and diverse community of people around the world.

Search Drupal.org

Search

Refine your search

- ☒ All
- ☐ Themes
- ☐ Forums & Issues
- ☐ Modules
- ☐ Documentation
- ☐ Groups

Drupal Homepage

Log in / Register

Why Choose Drupal?

Use Drupal to build everything from personal blogs to enterprise applications. Thousands of add-on modules and designs let you build any site you can imagine. Join us!

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Drupal Distributions

Distributions are a collection of pre-configured themes and modules for feature-rich web sites giving you a head start on building your site. Build your own online communities, media portal, online store, and more!

Learn about Distributions

Sites Made with Drupal



Enterprise Booking Platform built with Drupal 7

Drupal is used by some of the biggest sites on the Web, like [The Economist](#), [Examiner.com](#) and [The White House](#). Read more Drupal [case studies](#).

Develop with Drupal



Drupal 8 is coming soon and you can [read all about it here](#). You can also help build Drupal 8 by volunteering for development, design and testing work. [Get started now.](#)

24,549 [Modules](#)
1,878 [Themes](#)
714 [Distributions](#)
30,205 [Developers](#)

This week
2,679 [Code commits](#)
5,237 [Issue comments](#)

[Drupal Core](#)
[Security Info](#)
[Developer Docs](#)
[API Docs](#)

Drupal Association News

Helping Drupal Flourish



Create your stunning website

WordPress.com powers beautiful websites for businesses, professionals, and bloggers.

[Get Started](#)**NEW**

Business plans now offer access to thousands of WordPress plugins and themes!

Features you'll love



Easy to use

Creating and managing your website is simple with WordPress.com's powerful



Your own domain name

Register a unique .com, .net, .org, or .me domain and start using it in seconds. You



Outstanding design

Find a unique style for your site: WordPress.com features hundreds of

10 Things Every Web Developer Should Know

[HTMLGoodies, 2018]

Thing 1: How to Pick a Common Sense Name

Common sense should be used when naming your web site. This not only includes titles and pages on your site, but more importantly, the name of your domain. While quirky, fun names can sometimes work, they can also fail if they don't have some connection to what your site is trying to accomplish. Additionally, odd spellings or misspelling of words in a domain name can cause you to lose a lot of traffic. You are better off picking something easy to remember and easy to spell than something that is quirky with odd letters or dashes. If people can't remember or find your domain because of an odd name, then everything else you do is pointless!

Thing 2: How to Optimize Images

Web sites are loaded with images and graphics of various sizes and types. While bandwidth is getting larger and throughput is faster for many people, it is still important to make sure you don't use excessively large image files. For example, many cameras can now take images that are at 4K resolutions; however, most people are not browsing sites on 4K monitors, nor do they need large resolution images. Reducing the size and resolution of images to what is good enough will help your web site load faster, which can in turn result in better SEO rankings. There are numerous free tools available for optimizing sites. The article, [So You Want to Optimize Your Images](#), here on HTMLGoodies shows one such free tool.

Thing 3: Understand What SEO Entails

If you are building a web site for yourself, then understanding what SEO is and what it can do is not important. You can move on! If you are building a site that you want others to find, then you should have a basic understanding of SEO, which stands for Search Engine Optimization. SEO is a process of creating a web site that is optimized for pages to be found and ranked within the search engines. There are a number of simple SEO topics, some of which overlap with the things mentioned in this article.

10 Things Every Web Developer Should Know

Thing 4: Understanding Layout Concepts

Years ago, site pages contained primarily flat pages with text and images much like a magazine article. Things evolve with time, and web sites are no exception!

When laying out your web site, you should take into consideration concepts such as scrolling, being reactive to different browser widths, and even printing.

As an example, scrolling up and down is common, and people are not generally bothered if they have to scroll down a page. However, scrolling left and right to read content on a page can quickly irritate someone trying to read an article. As such, avoiding horizontal scrolling is important. Having said that, on mobile devices, swiping right or left to scroll through a slideshow does make sense, especially if your layout includes visual cues that such scrolling can happen.

In building modern web sites, responsive designs have become the standard. These are designs that adapt based on the user and the device on which content is to be viewed, which leads to the next Thing!

Thing 5: Understanding Platform Differences

Understanding that a web site can be viewed from different platforms is critical. In today's crazy world, people are using desktop computers, tablets, phones, and other devices to access the web. While you can choose to ignore this variety, the more your site responds and displays content that fits the device, the better the user experience will be for those coming to your site. A better user experience should result in higher engagement and higher return visits.

A big area to watch for in this regard is, again, your images. If you are using wide images on your site, these might not translate efficiently and effectively on smaller mobile devices such as phones. Similarly, while a desktop system can often display a three-column layout without issue and in a pleasing manner, this is rarely the case on a mobile phone. If you are building a web site, you need to keep this in mind from the beginning of your site planning!

10 Things Every Web Developer Should Know

Thing 6: Know the Popular Browsers

Just as you need to keep various devices in mind when designing and building web sites, you also need to be aware of the most common browsers. While it would be nice to assume that all popular browsers operate the same, it simply isn't true. The easiest thing to do is to simply review your site on each of the popular browsers. This would include Firefox, Microsoft Edge, Chrome and Safari, at a minimum.

Thing 7: Know Basic Testing

The last three things lead to Thing 7, which is that you need to know basic testing strategies. More importantly, you need to actually do a bit of basic testing! This doesn't have to be complicated. While you can do complicated, formalized testing, most people unfortunately don't. At a minimum, there are a few things you can, and should always do.

First, you should simply make sure your web site loads and displays. You should open your browser on a system other than your own and load each page to make sure they work. You should also click each link you have included to make sure they work and go where you expect. You should perform this on each of the major browsers (Thing 6) as well as make sure your pages load cleanly on various platforms (Thing 5).

Thing 8: Know How HTML Works

While there are many tools available that let you create web sites without ever looking at code, understanding HTML will enable you to better address issues that come up with your web site. HTML is an easy-to-understand mark-up language. As such, by knowing what the common tags are and how they work, you will be able to better understand how your site is being displayed and what could potentially be the issue if something is displayed oddly.

10 Things Every Web Developer Should Know

Thing 9: Know What JavaScript Does

Knowing how JavaScript works can also help you build your web site. While JavaScript pushes you into the coding world, it isn't really necessary to understand how to write JavaScript, but rather to understand what it is and what it can do for your site. JavaScript and JavaScript coding snippets can provide you with pre-existing functionality that can be added to your site to do cool, interesting things. By understanding what JavaScript can do, you'll be in a better position to make small changes yourself or you'll be better equipped to make requests of developers without overcharged for something that could be simply a matter of a piece of pre-existing code being plugged into your site!

Thing 10: Understand Copyright Rules

Understanding HTML and JavaScript are likely the least important of the ten things listed in this list. Understanding Copyright is likely the most important.

Just because you find something on the Web does not mean you can copy and use it on your own site.

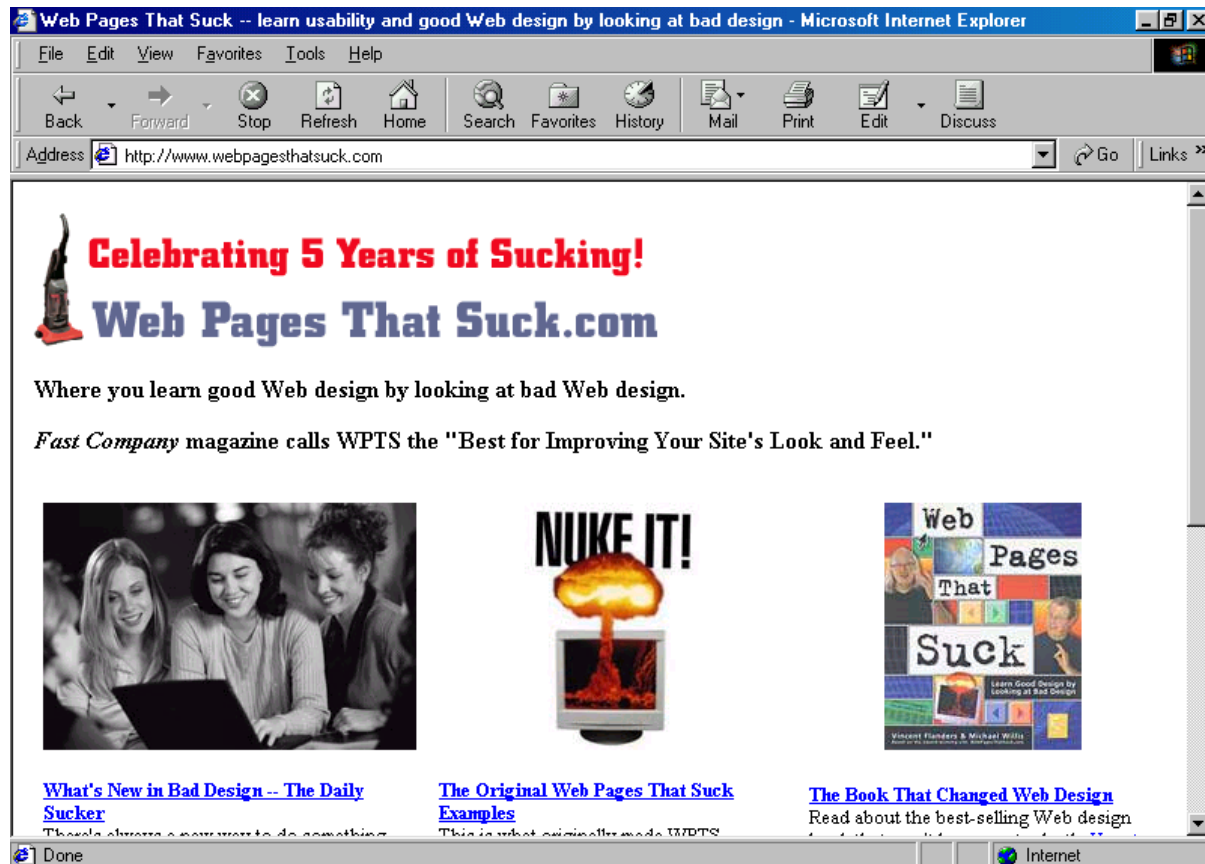
Images, text, and even layouts can be copyrighted. If you copy an article from another site, you could not only be plagiarizing, but you could also be violating another person's copyright. This can lead to legal action and fines against you. Copying images is where many people run into trouble. Images are generally copyrighted and require not only licensing, but often a payment of royalties to use. Images such as logos, popular characters, and product names can also be considered intellectual property of companies and the creators. Using them without proper permissions can be illegal. As such, you need to pay attention to licensing and make sure you are using any content you get from other sites in a responsible, legal manner.

Things to do to make a bad web site:

- Make no plan in advance (let it grow like a fungus)
- Design your site with SharePoint and the like using the “professionally” prepared templates
- Design your site for a 21 to 24 inch monitor
- Never check the site in any other platform or browser
- Use .gif format for photos and .jpg for line art - save all in high quality 300 dpi
- If graphics are too large, just use width and height properties
- Use many animations
- Use clip art that came with your word processor
- Use a splash entry page with full screen graphics
- Make sure you add the tag “looks best when viewed with ...”

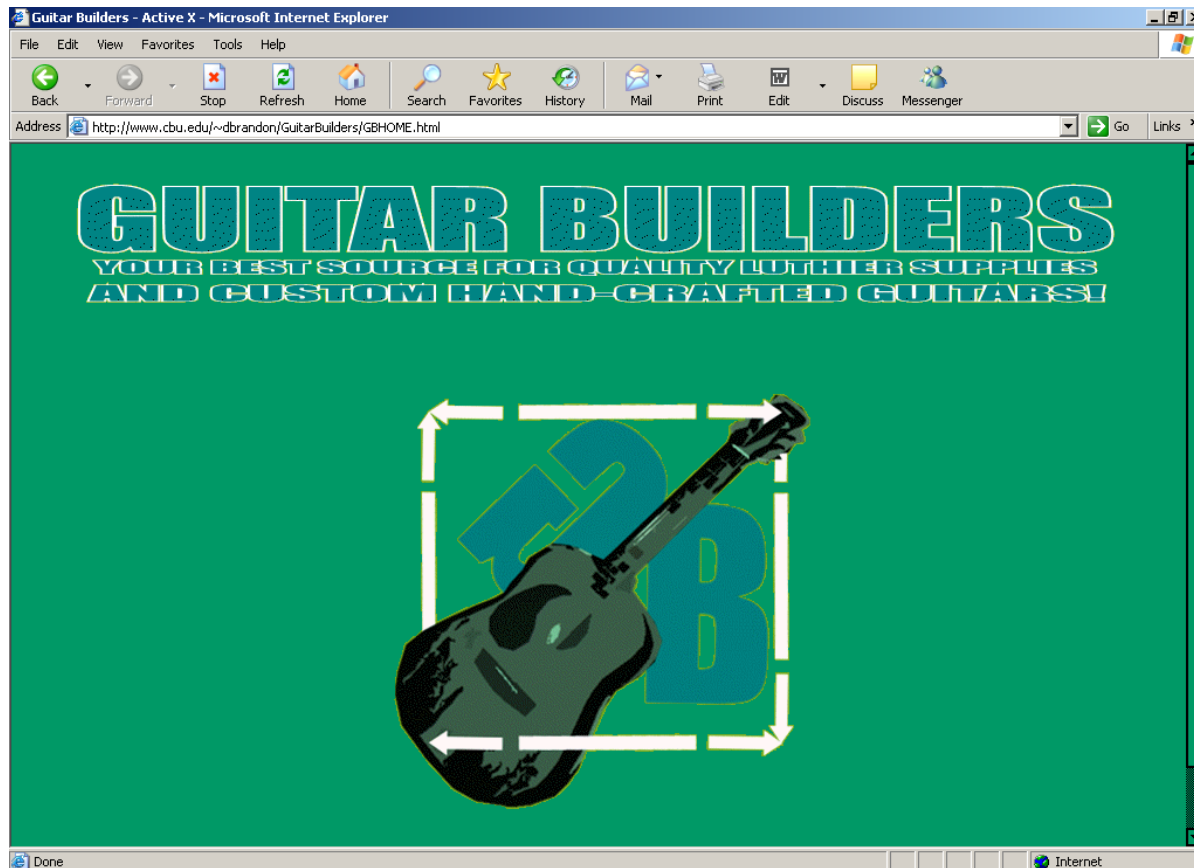
- Make a flash only site, add shockwave or other plug-ins
- Add music (that cannot be turned off and that “loops”)
- Use black backgrounds, and as much frames, animations, and java as possible so you page totals over 100k
- Use large buttons for navigation with cool Java rollover effects; make everything rollover
- Include as many links as possible, even if they have nothing to do with your subject, and add links that are frequently offline
- Use AOL to host your site and provide free MP3 downloads
- Pick as long a domain name as possible, make sure none of the words have anything to do with your topic; go for the .net or .org names
- Never have any contact information, or if you do make sure it is several layers down
- Use no meta tags or include “no robots.txt” file in your site; never list your site with search engines
- Never update you site

www.webpagesthatsuck.com



Project Example

[<http://facstaff.cbu.edu/dbrandon/GuitarBuilders/GBHOME.html>]



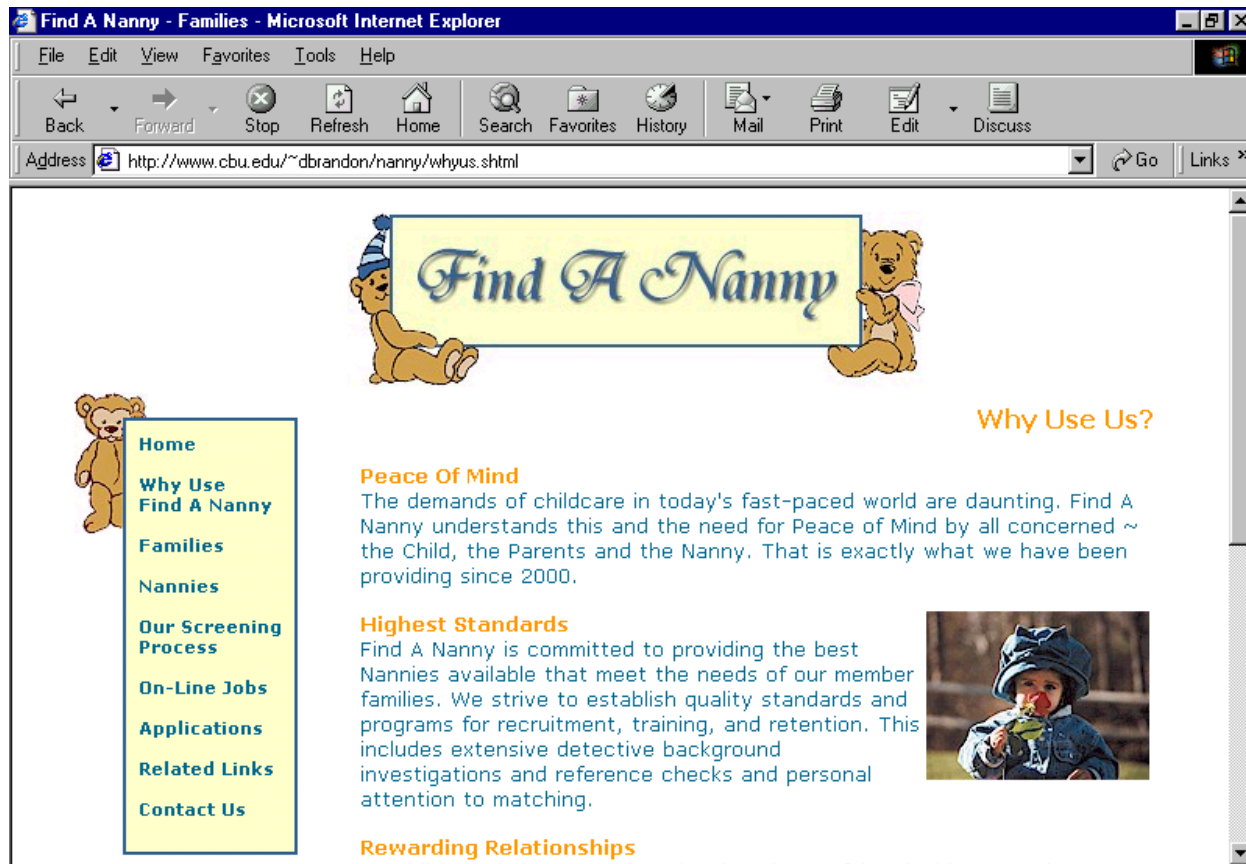
Project Example

[facstaff.www.cbu.edu/~dbrandon/nanny/index.shtml]

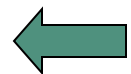
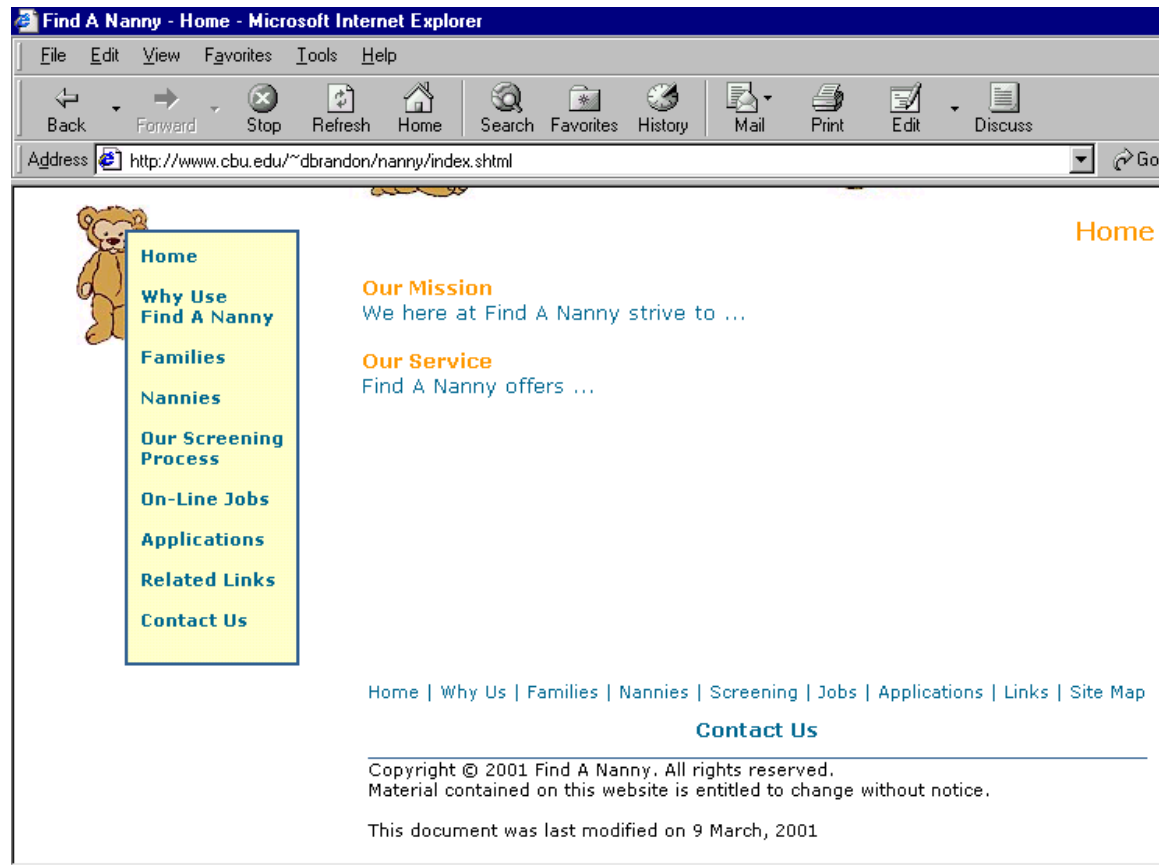


Uses an external style sheet, an external JS file, and Server Side Includes

Common Look & Feel



Common “Footer”



Server Interaction

(Project 3 would have the “working” form)

Find A Nanny - Nanny Application - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Discuss

Address <http://www.cbu.edu/~dbrandon/nanny/nannyapp.shtml> Go Links >>

 **Home**
Why Use Find A Nanny
Families
Nannies
Our Screening Process
On-Line Jobs
Applications
Related Links
Contact Us

Nanny Application

Instructions

- Fill out the form entirely.
- If the requested information is not applicable, then enter N/A, 0, or check No etc.
- Read the agreement.
- Click on the submit button.

Thank You for your interest in Find A Nanny.

Your Contact Information

Name:

Last:

First: Middle Initial:

Address:

Street:

City: State: Zip:

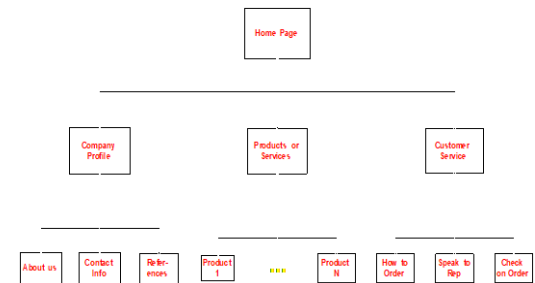
Telephone Numbers:

References

- Web Navigation: Designing the User Experience 1-56592-351-0
- Usability.gov (<http://usability.gov/index.html>)
- The Visual Learner's Guide to Managing Web Projects - 970747934
- Professional Web Design 1-58450-066-2
- Homepage Usability: 50 Websites Deconstructed 0-7357-1102-X
- Don't Make Me Think: A Common Sense Approach to Web Usability 0-7897-2310-7
- The Wireless Web Usability Handbook 1-58450-056-5
- Web Design and Development 1-58450-036-0
- The Web Creation Kit 1-58450-083-2
- The Web Site Usability Handbook 1-58450-026-3

Homework

- Textbook Appendix E
- Complete a “site design” for your Project 2 !! → Examples
 - Users, Content, Priority
 - Design (tree) diagram (layout)
 - Answer “Planning and Design Questions”
 - Research of similar business websites
 - Logo design
 - Prepare your storyboards (several major pages only)
- Project 2 deliverables:
 - Selected industry area
 - Multiple pages, common external stylesheet(s) for all pages
 - Appropriate navigation/linking
 - Rollovers
 - Multimedia
- Hand written code (html, etc.); no use of wysiwyg generators
- See Appendices → SEO and Web Site Development Process





Search Engine Optimization



SEO

Successful Search Engine Optimization (SEO)

- Great website design
 - Compelling content that answers the searcher's query
 - Crawl accessibility so engines can read your website
 - Great user experience including a fast load speed and compelling UX
 - Title, URL, & description to draw high CTR (click thru rate) in the rankings
- Keywords optimized to attract searchers & engines
- Snippet/schema markup to stand out in search engine results pages (SERPs)
- Sharing links with other businesses
 - Share-worthy content that earns links, citations, and amplification

Mozlow's Hierarchy of SEO Needs"

- Maslow's hierarchy of needs is a theory of psychology that prioritizes the most fundamental human needs (like air, water, and physical safety) over more advanced needs (like esteem and social belonging)
- The theory is that you can't achieve the needs at the top without ensuring the more fundamental needs are met first -- Love doesn't matter if you don't have food
- Rand Fishkin, made a similar pyramid to explain the way folks should go about SEO dubbed it "Mozlow's hierarchy of SEO needs" -

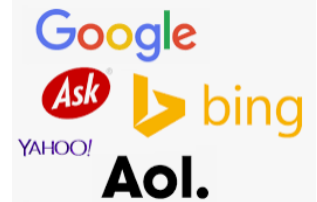
<https://moz.com/beginners-guide-to-seo>

Mozlow's Hierarchy of SEO Needs



Search Engines

- Search engines have three primary functions:
 - **Crawl:** Scour the Internet for content, looking over the code/content for each URL they find
 - **Index:** Store and organize the content found during the crawling process; once a page is in the index, it's in the running to be displayed as a result to relevant queries
 - **Rank:** Provide the pieces of content that will best answer a searcher's query, which means that results are ordered by most relevant to least relevant



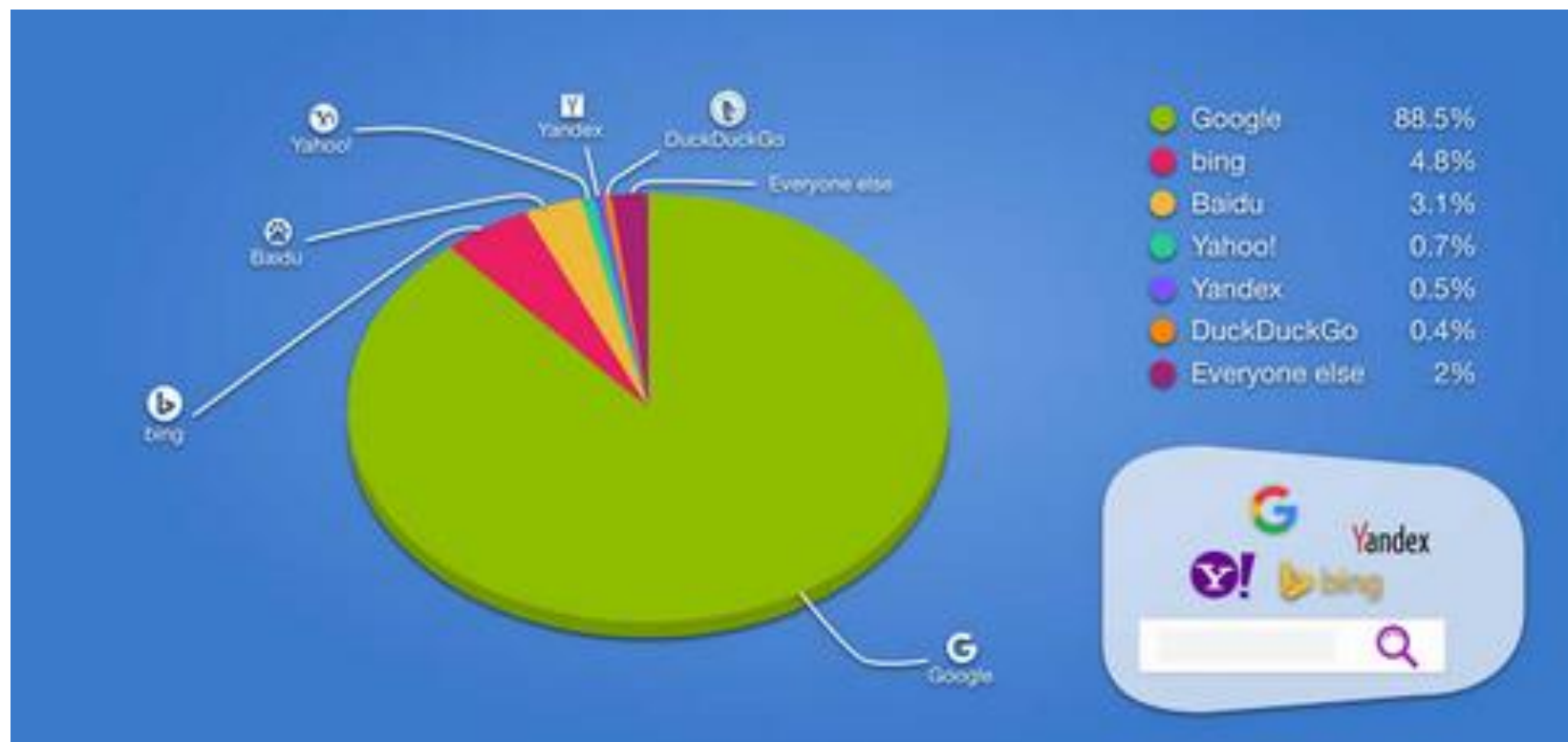
Search Engines (con't)

- When someone performs a search, search engines scour their index for highly relevant content and then order that content in the hopes of solving the searcher's query
- This ordering of search results by relevance is known as **ranking**
- In general, you can assume that the higher a website is ranked, the more relevant the search engine believes that site is to the query
- It's possible to block search engine crawlers from part or all of your site, or instruct search engines to avoid storing certain pages in their index
- **While there can be reasons for doing this, if you want your content found by searchers, you have to first make sure it's accessible to crawlers and is indexable**

Google

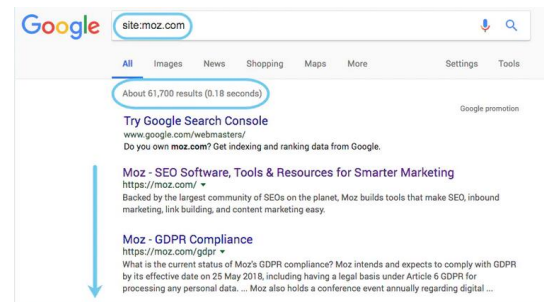
- Many wonder about the relative importance of particular search engines
- Google has the largest market share, but how important it is to optimize for Bing, Yahoo, and others?
- Despite the existence of more than 30 major web search engines, the SEO community really only pays attention to Google
- Google is where the vast majority of people search the web
- If we include Google Images, Google Maps, and YouTube (a Google property), more than 90% of web searches happen on Google — that's nearly 20 times Bing and Yahoo combined

Desktop Market Search Engine Share



Check Your Site's Indexing

- One way to check your indexed pages is "site:yourdomain.com", an [advanced search operator](#)
- Head to Google and type "site:yourdomain.com" into the search bar
- After ownership confirmation, this will return results Google has in its index for the site specified:



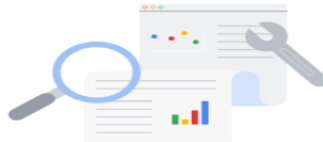
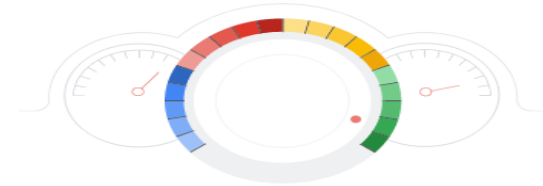
Google Search Console (con't)

Google Search Console

Improve your performance on Google Search

Search Console tools and reports help you measure your site's Search traffic and performance, fix issues, and make your site shine in Google Search results

Start now



Optimize your content with Search Analytics

See which queries bring users to your site. Analyze your site's impressions, clicks, and position on Google Search.

Get your content on Google

Submit sitemaps and individual URLs for crawling. Review your index coverage to make sure that Google has the freshest view of your site.



Get alerted on issues and fix your site

Google Search Console

- Search Console is a free product that provides data and analytics to help improve your site's performance in Google search
- You can sign up for a free Google Search Console account if you don't currently have one
- Enabling Search Console data within Analytics
 - Once you connect a site you own in Search Console to your Analytics property, its data becomes visible in your Search Engine Optimization reports
 - You can visit the Property Settings page in Analytics account management to change which of your Search Console sites' data you wish to show, and control which views on your Web Property have access to view the data
- With this tool, you can submit sitemaps for your site and monitor how many submitted pages have actually been added to Google's index, among other things

Google Search Console (con't)

- How to use Search Console data within Analytics
 - Search Console provides data about what users see in Google search results before they decide to click to your site (or some other site)
 - You can use this data to identify opportunities and prioritize development effort to increase the number of visitors to your site; examples:
 - Identify landing pages on your site that have good clickthrough rates (CTR), but have poor average positions in search results these could be pages that people want to see, but have trouble finding
 - Identify search queries (keywords) for which your site has good average positions, but poor click through rates; these are queries for which your pages get attention and improved content could lead to more visitors
- For more accurate results, monitor and use the Index Coverage report in Google Search Console
- If you're not showing up anywhere in the search results, there are a few possible reasons why:
 - Your site is brand new and hasn't been crawled yet
 - Your site isn't linked to from any external websites
 - Your site's navigation makes it hard for a robot to crawl it effectively
 - Your site contains some basic code called crawler directives that is blocking search engines
 - Your site has been penalized by Google for spammy tactics

Robots.txt

- If you used Google Search Console found that some of your important pages are missing from the index and/or some of your unimportant pages have been mistakenly indexed, there are some optimizations you can implement to better direct Googlebot how you want your web content crawled
- Telling search engines how to crawl your site can give you better control of what ends up in the index
- Most people think about making sure Google can find their important pages, but it's easy to forget that there are likely pages you don't want Googlebot to find
- These might include things like old URLs that have thin content, duplicate URLs (such as sort-and-filter parameters for e-commerce), special promo code pages, staging or test pages, and so on
- To direct Googlebot away from certain pages and sections of your site, use robots.txt
- Robots.txt files are located in the root directory of websites (ex. `yourdomain.com/robots.txt`) and suggest which parts of your site search engines should and shouldn't crawl, as well as the speed at which they crawl your site, via specific robots.txt directives

Crawl Budget

- Crawl budget is the average number of URLs Googlebot will crawl on your site before leaving, so crawl budget optimization ensures that Googlebot isn't wasting time crawling through your unimportant pages at risk of ignoring your important pages
- Crawl budget is most important on very large sites with tens of thousands of URLs, but it's never a bad idea to block crawlers from accessing the content you definitely don't care about
- Just make sure not to block a crawler's access to pages you've added other directives on, such as canonical or noindex tags
- If Googlebot is blocked from a page, it won't be able to see the instructions on that page

Example robots.txt

← → ↻ Secure <https://www.buzzfeed.com/robots.txt>

```
User-agent: msnbot
Crawl-delay: 120
Disallow: /*.xml$
Disallow: /buzz/*.xml$
Disallow: /category/*.xml$
Disallow: /mobile/
Disallow: *?s=mobile
Disallow: *?s=lightbox
Disallow: /bfmp/
Disallow: /buzzfeed/
Disallow: /contest
Disallow: /contests
Disallow: /plugin/
Disallow: /embed/
Disallow: /_comments/
```

Buzzfeed.com wants msnbot to wait 120 msc before crawling each page and NOT crawl any of these URL strings.

AND

```
User-agent: *
Disallow: /buzz/*.xml$
Disallow: /category/*.xml$
Disallow: /mobile/
Disallow: *?s=lightbox
Disallow: /bfmp/
Disallow: /buzzfeed/
Disallow: /contest
Disallow: /contests
Disallow: /_ga/
Disallow: /static/
Disallow: /dashboard/
Disallow: /plugin/
Disallow: /api/
Disallow: /buzzfeed/api/
Disallow: /embed/
Disallow: /_comments/
```

Buzzfeed.com wants all other user-agents (except for msnbot, discobot, and Slurp) to NOT crawl any of these URL strings

AND

```
User-agent: discobot
Disallow: /
```

Discobot should not crawl ANY URLs on buzzfeed.com.

AND

```
User-agent: Slurp
Crawl-delay: 4
```

Slurp (Yahoo's user-agent) should wait 4 msc before crawling each page, but crawl all URLs on buzzfeed.com.

Multiple URL's

- Some sites (most common with e-commerce) make the same content available on multiple different URLs by appending certain parameters to URLs
- If you've ever shopped online, you've likely narrowed down your search via filters; for example, you may search for "shoes" on Amazon, and then refine your search by size, color, and style
- Each time you refine, the URL changes slightly:
 - `https://www.example.com/products/women/dresses/green.htmhttps://www.example.com/products/women?category=dresses&color=greenhttps://example.com/shopindex.php?product_id=32&highlight=green+dress&cat_id=1&sessionid=123&affid=43`
- How does Google know which version of the URL to serve to searchers?
- Google does a pretty good job at figuring out the representative URL on its own, but you can use the URL Parameters feature in Google Search Console to tell Google exactly how you want them to treat your pages
- If you use this feature to tell Googlebot "crawl no URLs with ____ parameter," then you're essentially asking to hide this content from Googlebot, which could result in the removal of those pages from search results
- That's what you want if those parameters create duplicate pages, but not ideal if you want those pages to be indexed

Crawling *through* your site, and not just to it?

- Sometimes a search engine will be able to find parts of your site by crawling, but other pages or sections might be obscured for one reason or another
- It's important to make sure that search engines are able to discover all the content you want indexed, and not just your homepage
- **Is your content hidden behind login forms?**
 - If you require users to log in, fill out forms, or answer surveys before accessing certain content, search engines won't see those protected pages. A crawler is definitely not going to log in.
- **Are you relying on search forms?**
 - Robots cannot use search forms. Some individuals believe that if they place a search box on their site, search engines will be able to find everything that their visitors search for.
- **Is text hidden within non-text content?**
 - Non-text media forms (images, video, GIFs, etc.) should not be used to display text that you wish to be indexed. While search engines are getting better at recognizing images, there's no guarantee they will be able to read and understand it just yet. It's always best to add text within the <HTML> markup of your webpage.

Crawler Following Your Site Navigation

- Just as a crawler needs to discover your site via links from other sites, it needs a path of links on your own site to guide it from page to page
- If you've got a page you want search engines to find but it isn't linked to from any other pages, it's as good as invisible
- Many sites make the critical mistake of structuring their navigation in ways that are inaccessible to search engines, hindering their ability to get listed in search results

Common Navigation Mistakes

- Having a mobile navigation that shows different results than your desktop navigation
- Any type of navigation where the menu items are not in the HTML, such as JavaScript-enabled navigations
 - Google has gotten much better at crawling and understanding Javascript, but it's still not a perfect process - The more surefire way to ensure something gets found, understood, and indexed by Google is by putting it in the HTML
- Personalization, or showing unique navigation to a specific type of visitor versus others, could appear to be cloaking to a search engine crawler
- Forgetting to link to a primary page on your website through your navigation
- It's essential that your website has a clear navigation and helpful URL folder structures

Sitemap

- A sitemap is just what it sounds like: a list of URLs on your site that crawlers can use to discover and index your content; Google support several formats for sitemaps
- One of the easiest ways to ensure Google is finding your highest priority pages is to create a file that meets Google's standards and submit it through Google Search Console
- While submitting a sitemap doesn't replace the need for good site navigation, it can certainly help crawlers follow a path to all of your important pages
- Ensure that you've only included URLs that you want indexed by search engines, and be sure to give crawlers consistent directions
- For example, don't include a URL in your sitemap if you've blocked that URL via robots.txt or include URLs in your sitemap that are duplicates rather than the preferred, canonical version
- If your site doesn't have any other sites linking to it, you still might be able to get it indexed by submitting your XML sitemap in Google Search Console

Example Sitemap in XML Format

```
<?xml version="1.0" encoding="UTF-8" ?>
<urlset xmlns="http://www.sitemaps.org/schemas/sitemap/0.9" xmlns:image="http://www.google.com/schemas/sitemap-image/1.1"
xmlns:mobile="http://www.google.com/schemas/sitemap-mobile/1.0" xmlns:video="http://www.google.com/schemas/sitemap-video/1.1">
  <url>
    <loc>https://www.hubspot.com/hubspot-red-cross</loc>
    <lastmod>2013-11-26</lastmod>
  </url>
  <url>
    <loc>https://www.hubspot.com/executive-seminars-2013</loc>
    <lastmod>2016-07-28</lastmod>
  </url>
  <url>
    <loc>
      https://www.hubspot.com/blog/bid/1331/Press-Release-HubSpot-Announces-Seed-Round-Funding
    </loc>
    <lastmod>2013-04-09</lastmod>
  </url>
  <url>
    <loc>
      https://www.hubspot.com/blog/bid/1326/Brian-Halligan-Interviewed-on-zBiz-tv
    </loc>
    <lastmod>2013-04-09</lastmod>
  </url>
  <url>
    <loc>
      https://www.hubspot.com/blog/bid/1325/Press-Release-HubSpot-Completes-Acquisition-of-GroupSharp
    </loc>
    <lastmod>2013-04-09</lastmod>
  </url>
  <url>
    <loc>
      https://www.hubspot.com/blog/bid/1313/Website-Grader-Featured-on-Hacked-com
    </loc>
    <lastmod>2013-04-09</lastmod>
  </url>
  <url>
    <loc>
      https://www.hubspot.com/blog/bid/1324/HubSpot-Mentioned-in-Blog-on-SaaS-Camp
    </loc>
    <lastmod>2013-04-09</lastmod>
  </url>
  <url>
    <loc>
      https://www.hubspot.com/blog/bid/1322/HubSpot-Featured-on-MarketingRev
    </loc>
    <lastmod>2013-04-09</lastmod>
  </url>
</urlset>
```

Crawler Problems

- **Are crawlers getting errors when they try to access your URLs?**
- In the process of crawling the URLs on your site, a crawler may encounter errors
- You can go to Google Search Console's "Crawl Errors" report to detect URLs on which this might be happening - this report will show you server errors and not found errors
- Server log files can also show you this, as well as a treasure trove of other information such as crawl frequency, but because accessing and dissecting server log files is a more advanced tactic
- Before you can do anything meaningful with the crawl error report, it's important to understand server errors and "not found" errors:
 - **4xx Codes: When search engine crawlers can't access your content due to a client error**
 - 4xx errors are client errors, meaning the requested URL contains bad syntax or cannot be fulfilled
 - One of the most common 4xx errors is the "404 – not found" error; these might occur because of a URL typo, deleted page, or broken redirect
 - **5xx Codes: When search engine crawlers can't access your content due to a server error**
 - 5xx errors are server errors, meaning the server the web page is located on failed to fulfill the searcher or search engine's request to access the page
 - In Google Search Console's "Crawl Error" report, there is a tab dedicated to these errors
 - These typically happen because the request for the URL timed out, so Googlebot abandoned the request
 - There is a way to tell both searchers and search engines that your page has moved — the **301 (permanent) redirect**

How Search Engines Interpret And Store Your Pages

- Once you've ensured your site has been crawled, the next order of business is to make sure it can be indexed
- Just because your site can be discovered and crawled by a search engine doesn't necessarily mean that it will be stored in their index
- The index is where your discovered pages are stored
- After a crawler finds a page, the search engine renders it just like a browser would
- In the process of doing so, the search engine analyzes that page's contents - all of that information is stored in its index

Seeing How A Googlebot Crawler Sees Your Pages

- The cached version of your page will reflect a snapshot of the last time Googlebot crawled it
- Google crawls and caches web pages at different frequencies
- More established, well-known sites that post frequently will be crawled more frequently than the much-less-famous website
- You can view what your cached version of a page looks like by clicking the drop-down arrow next to the URL in the SERP and choosing "Cached":

Moz - SEO Software, Tools & Resources for Smarter Marketing

<https://moz.com/>

Backed by the large
marketing, link build

Cached

Similar

of SEOs on the planet, Moz builds tools that make SEO, inbound
nt marketing easy.

Pages Removed From The Index

- Pages can be removed from the index
- Some of the main reasons why a URL might be removed include:
 - The URL is returning a "not found" error (4XX) or server error (5XX) – This could be accidental (the page was moved and a 301 redirect was not set up) or intentional (the page was deleted and 404ed in order to get it removed from the index)
 - The URL had a noindex meta tag added – This tag can be added by site owners to instruct the search engine to omit the page from its index
 - The URL has been manually penalized for violating the search engine's Webmaster Guidelines and, as a result, was removed from the index
 - The URL has been blocked from crawling with the addition of a password required before visitors can access the page
- If you believe that a page on your website that was previously in Google's index is no longer showing up, you can use the URL Inspection tool to learn the status of the page, or use Fetch as Google which has a "Request Indexing" feature to submit individual URLs to the index
- GSC's "fetch" tool also has a "render" option that allows you to see if there are any issues with how Google is interpreting your page

Meta Directives

- Meta directives (or "meta tags") are instructions you can give to search engines regarding how you want your web page to be treated
- You can tell search engine crawlers things like "do not index this page in search results" or "don't pass any link equity to any on-page links"
- These instructions are executed via Robots Meta Tags in the <head> of your HTML pages (most commonly used) or via the X-Robots-Tag in the HTTP header
- The robots meta tag is placed within the <head> of the HTML of your webpage
- It can exclude all or specific search engines

```
<!DOCTYPE html>
<html><head>
  <meta name="robots" content="noindex" />
  (...)
</head>
<body> (...)</body>
</html>
```

Meta Directives (con't)

- The following are the most common meta directives, along with what situations you might apply them in
 - index/noindex tells the engines whether the page should be crawled and kept in a search engines' index for retrieval. If you opt to use "noindex," you're communicating to crawlers that you want the page excluded from search results. By default, search engines assume they can index all pages, so using the "index" value is unnecessary.
 - When you might use: You might opt to mark a page as "noindex" if you're trying to trim thin pages from Google's index of your site (ex: user generated profile pages) but you still want them accessible to visitors.
 - follow/nofollow tells search engines whether links on the page should be followed or nofollowed. "Follow" results in bots following the links on your page and passing link equity through to those URLs. Or, if you elect to employ "nofollow," the search engines will not follow or pass any link equity through to the links on the page. By default, all pages are assumed to have the "follow" attribute.
 - When you might use: nofollow is often used together with noindex when you're trying to prevent a page from being indexed as well as prevent the crawler from following links on the page.
 - noarchive is used to restrict search engines from saving a cached copy of the page. By default, the engines will maintain visible copies of all pages they have indexed, accessible to searchers through the cached link in the search results.
 - When you might use: If you run an e-commerce site and your prices change regularly, you might consider the noarchive tag to prevent searchers from seeing outdated pricing.
 - Here's an example of a meta robots noindex, nofollow tag:
 - `<!DOCTYPE html><html><head><meta name="robots" content="noindex, nofollow" /></head><body>...</body></html>`
 - This example excludes all search engines from indexing the page and from following any on-page links. If you want to exclude multiple crawlers, like googlebot and bing for example, it's okay to use multiple robot exclusion tags.

Search Engine Support of Meta Tags

Robots value	Google	Yahoo	Bing	Ask	Baidu	Yandex
Indexing controls						
index	Y*	Y*	Y*	?	Y	Y
noindex	Y	Y	Y	?	Y	Y
noimageindex	Y	N	N	?	N	N
Whether links should be followed						
follow	Y*	Y*	Y*	?	Y	Y
nofollow	Y	Y	Y	?	Y	Y
none	Y	?	?	?	N	Y
all	Y	?	?	?	N	Y
Snippet/preview controls						
noarchive	Y	Y	Y	?	Y	Y
nocache	N	N	Y	?	N	N
nosnippet	Y	N	Y	?	N	N
nositelinkssearchbox	Y	N	N	N	N	N
nopageread aloud	Y	N	N	N	N	N
notranslate	Y	N	N	?	N	N
max-snippet: [number]	Y	Y	N	N	N	N
max-video-preview: [number]	Y	Y	N	N	N	N
max-image-preview: [setting]	Y	Y	N	N	N	N
Miscellaneous						
rating	Y	N	N	N	N	N
unavailable_after	Y	N	N	?	N	N
noodp	N	Y*	Y*	?	N	N
noydir	N	Y*	N	?	N	N
noyaca	N	N	N	N	N	Y

X-Robots-Tag

- The x-robots tag is used within the HTTP header of your URL, providing more flexibility and functionality than meta tags if you want to block search engines at scale because you can use regular expressions, block non-HTML files, and apply sitewide noindex tags
- For example, you could easily exclude entire folders or file types (like moz.com/no-bake/old-recipes-to-noindex):
 - `<Files ~ "V?no\bake\.*">` Header set X-Robots-Tag "noindex, nofollow"</Files>
- The derivatives used in a robots meta tag can also be used in an X-Robots-Tag
- Or specific file types (like PDFs):
 - `<Files ~ "\.pdf$">` Header set X-Robots-Tag "noindex, nofollow"</Files>

Ranking

- How do search engines ensure that when someone types a query into the search bar, they get relevant results in return
- That process is known as **ranking, or the ordering of search results by most relevant to least relevant to a particular query**
- To determine relevance, search engines use algorithms, a process or formula by which stored information is retrieved and ordered in meaningful ways
- These algorithms have gone through many changes over the years in order to improve the quality of search results
- Google, for example, makes algorithm adjustments regularly — some of these updates are minor quality tweaks, whereas others are core/broad algorithm updates deployed to tackle a specific issue

Ranking (con't)

- Links have historically played a big role in SEO
- Very early on, search engines needed help figuring out which URLs were more trustworthy than others to help them determine how to rank search results
- Calculating the number of links pointing to any given site helped them do this
- Backlinks work very similarly to real-life WoM (Word-of-Mouth) referrals
- **This is why PageRank was created**
- PageRank (part of Google's core algorithm) is a link analysis algorithm named after one of Google's founders, Larry Page
- PageRank estimates the importance of a web page by measuring the quality and quantity of links pointing to it
- The assumption is that the more relevant, important, and trustworthy a web page is, the more links it will have earned
- The more natural backlinks you have from high-authority (trusted) websites, the better your odds are to rank higher within search results

Ranking (con't)

- There would be no point to links if they didn't direct searchers to something
- That something is content
- Content is more than just words; it's anything meant to be consumed by searchers — there's video content, image content, and of course, text
- Any time someone performs a search, there are thousands of possible results, so how do search engines decide which pages the searcher is going to find valuable?
- A big part of determining where your page will rank for a given query is how well the content on your page matches the query's intent
- Because of this focus on user satisfaction and task accomplishment, there's no strict benchmarks on how long your content should be, how many times it should contain a keyword, or what you put in your header tags
- All those can play a role in how well a page performs in search, but the focus should be on the users who will be reading the content
- Today, with hundreds or even thousands of ranking signals, the top three have stayed fairly consistent: links to your website (which serve as a third-party credibility signals), on-page content (quality content that fulfills a searcher's intent), and RankBrain

Ranking (con't)

- **RankBrain** is the machine learning component of Google's core algorithm
- Machine learning is a computer program that continues to improve its predictions over time through new observations and training data
- For example, if RankBrain notices a lower ranking URL providing a better result to users than the higher ranking URLs, you can bet that RankBrain will adjust those results, moving the more relevant result higher and demoting the lesser relevant pages
- **Provide the best possible information and experience for searchers who might land on your page, and you've taken a big first step to performing well in a RankBrain world**

Engagement Metrics

- Engagement metrics are the data that represents how searchers interact with your site from search results, including:
 - **Clicks** (visits from search)
 - **Time on page** (amount of time the visitor spent on a page before leaving it)
 - **Bounce rate** (the percentage of all website sessions where users viewed only one page)
 - **Pogo-sticking** (clicking on an organic result and then quickly returning to the SERP to choose another result)
- Engagement metrics correlate with higher ranking, but causation has been hotly debated
- Are good engagement metrics just indicative of highly ranked sites? Or are sites ranked highly because they possess good engagement metrics?

Engagement Metrics (con't)

- Since user engagement metrics are clearly used to adjust the SERPs for quality, and rank position changes as a byproduct, SEO should **optimize for engagement**
- Engagement doesn't change the objective quality of your web page, but rather your value to searchers relative to other results for that query
- That's why, after no changes to your page or its backlinks, it could decline in rankings if searchers' behaviors indicates they like other pages better
- In terms of ranking web pages, engagement metrics act like a fact-checker - objective factors such as links and content first rank the page, then engagement metrics help Google adjust if they didn't get it right

The Evolution Of Search Results

- Back when search engines lacked a lot of the sophistication they have today, the term “10 blue links” was coined to describe the flat structure of the SERP
- Any time a search was performed, Google would return a page with 10 organic results, each in the same format
- In this search landscape, holding the #1 spot was the holy grail of SEO
- But then Google began adding results in new formats on their search result pages, called SERP features; some of these SERP features include:
 - Paid advertisements
 - Featured snippets
 - People Also Ask boxes
 - Local (map) pack
 - Knowledge panel
 - Sitelinks
- Google is adding new SRP features all the time
- Many of these features caused organic results to be pushed down further on the SERP
- Now fewer searchers are clicking on the organic results since more queries are being answered on the SERP itself

Localized Searches

- A search engine like Google has its own proprietary index of local business listings, from which it creates local search results
- If you are performing local SEO work for a business that has a physical location customers can visit (ex: dentist) or for a business that travels to visit their customers (ex: plumber), make sure that you claim, verify, and optimize a free Google My Business Listing
- When it comes to localized search results, Google uses these factors to determine ranking:
 - **Relevance** - is how well a local business matches what the searcher is looking for. To ensure that the business is doing everything it can to be relevant to searchers, make sure the business' information is thoroughly and accurately filled out.
 - **Distance** - Google use your geo-location to better serve you local results. Local search results are extremely sensitive to proximity, which refers to the location of the searcher and/or the location specified in the query (if the searcher included one). Organic search results are sensitive to a searcher's location, though seldom as pronounced as in local pack results.
 - **Prominence** - With prominence as a factor, Google is looking to reward businesses that are well-known in the real world. In addition to a business' offline prominence, Google also looks to some online factors to determine local ranking, such as:
 - **Reviews** - The number of Google reviews a local business receives, and the sentiment of those reviews, have a notable impact on their ability to rank in local results.
 - **Citations** - A "business citation" or "business listing" is a web-based reference to a local business' "NAP" (name, address, phone number) on a localized platform (Yelp, Acxiom, YP, Infogroup, Localeze, etc.).

Localized Searches (con't)

- Local rankings are influenced by the number and consistency of local business citations
- Google pulls data from a wide variety of sources in continuously making up its local business index
- When Google finds multiple consistent references to a business's name, location, and phone number it strengthens Google's "trust" in the validity of that data
- This then leads to Google being able to show the business with a higher degree of confidence
- Google also uses information from other sources on the web, such as links and articles.
- SEO best practices also apply to local SEO, since Google also considers a website's position in organic search results when determining local ranking
- Although not listed by Google as a local ranking factor, the role of engagement is only going to increase as time goes on
- Google continues to enrich local results by incorporating real-world data like popular times to visit and average length of visits

Keyword Research

- Once you've learned how to show up in search results, you need to determine which strategic keywords to target in your website's content, and how to craft that content to satisfy both users and search engines
- The power of keyword research lies in better understanding your target market and how they are searching for your content, services, or products
- Keyword research provides you with specific search data that can help you answer questions like:
 - What are people searching for?
 - How many people are searching for it?
 - In what format do they want that information?
- Once you uncover how your target audience is searching for your content, you begin to uncover a whole new world of strategic SEO

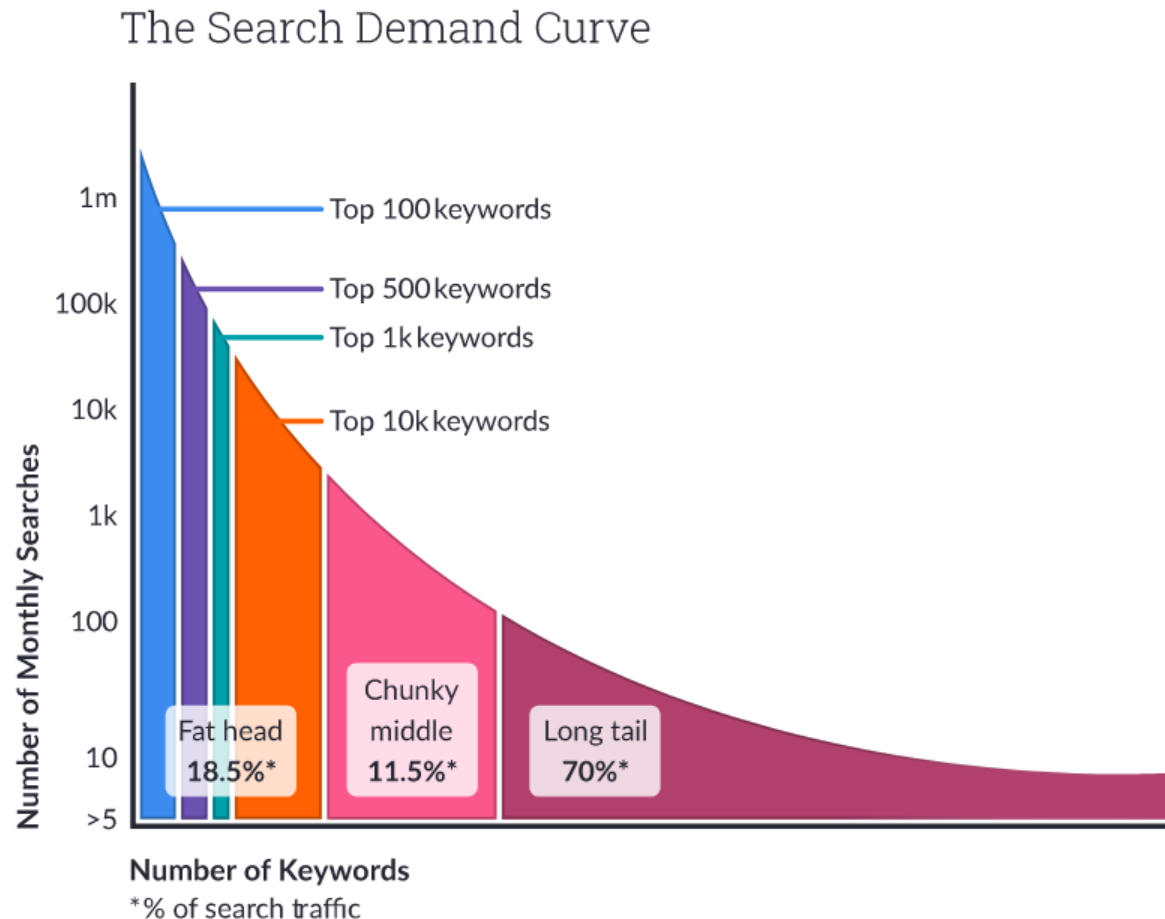
Discovering Keywords

- You may have a way of describing what you do, but how does your audience search for the product, service, or information you provide
- Answering this question is a crucial first step in the keyword research process
- You likely have a few keywords in mind that you would like to rank for
- These will be things like your products, services, or other topics your website addresses
- You can enter those keywords into a keyword research tool to discover average monthly search volume and similar keywords
- During the discovery phase, it can help you determine which variations of your keywords are most popular amongst searchers
- Once you enter in your seed keywords into a keyword research tool, you will begin to discover other keywords, common questions, and topics for your content that you might have otherwise missed

Discovering Keywords (con't)

- In the process of discovering relevant keywords for your content, you will likely notice that the search volume of those keywords varies greatly
- While you definitely want to target terms that your audience is searching for, in some cases, it may be more advantageous to target terms with lower search volume because they're far less competitive
- Since both high- and low-competition keywords can be advantageous for your website, learning more about search volume can help you prioritize keywords and pick the ones that will give your website the biggest strategic advantage
- **It's important to note that entire websites don't rank for keywords — pages do**
- With big brands, we often see the homepage ranking for many keywords, but for most websites this isn't usually the case
- Many websites receive more organic traffic to pages other than the homepage, which is why it's so important to diversify your website's pages by optimizing each for uniquely valuable keywords

Discovering Keywords (con't)



Google Keyword Planner

- **This Google tool will first help you to find new keywords:**
 - **“Enter Words”:** These are single words that describe your business (for example, “weight loss” or “coffee”). This allows you to access Google’s internal database of keywords for different industries. You can sometimes find keywords here that you might have missed using the other two options.
 - **“Phrases”:** This is where you enter “seed keywords” and get a list of closely-related terms. I recommend entering 1-3 keywords here, each in a slightly different Niche Market. For example, if you ran a cookie ecommerce site, you’d want to enter terms like “gluten free desserts” and “low carb cookies” here.
 - **“A URL related to your business”:** This is primarily for Adwords users. But you can sometimes find a few solid keywords here using your site’s homepage or an article from your site.
- **Next the tool will provide metrics and forecasts for your keywords:**
 - This is a feature that’s useful if you already have a long list of keywords and just want to check their search volume; this tool won’t help you generate new keyword ideas
 - Here one gets get data on the keywords you entered and Google will predict how many clicks and impressions you’ll get from the keywords you entered

JS and SEO

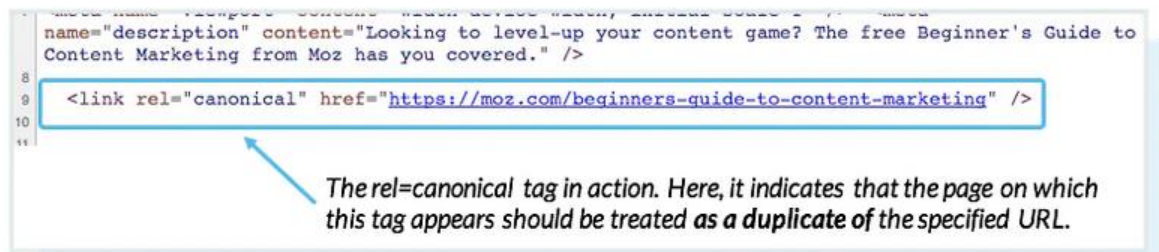
- JavaScript can pose some problems for SEO, though, since search engines don't view JavaScript the same way human visitors do
- Most JavaScript is executed in a client's browser
- SEO-critical page elements such as text, links, and tags that are loaded on the client's side with JavaScript, rather than represented in your HTML, are invisible from your page's code until they are rendered
- This means that search engine crawlers won't see what's in your JavaScript — at least not initially
- Google says that, as long as you're not blocking Googlebot from crawling your JavaScript files, they're generally able to render and understand your web pages just like a browser can, which means that Googlebot should see the same things as a user viewing a site in their browser
- However, due to this “second wave of indexing” for client-side JavaScript, Google can miss certain elements that are only available once JavaScript is executed

CSS and SEO

- It wasn't until 2014 that Google's indexing system began to render web pages more like an actual browser, as opposed to a text-only browser
- A black-hat SEO practice that tried to capitalize on Google's older indexing system was hiding text and links via CSS for the purpose of manipulating search engine rankings
- This "hidden text and links" practice is a violation of Google's quality guidelines
- Components of CSS that SEOs, in particular, should care about:
 - Since style directives can live in external stylesheet files (CSS files) instead of your page's HTML, it makes your page less code-heavy, reducing file transfer size and making load times faster
 - Browsers still have to download resources like your CSS file, so compressing them can make your webpages load faster, and page speed is a ranking factor
 - Having your pages be more content-heavy than code-heavy can lead to better indexing of your site's content
 - Using CSS to hide links and content can get your website manually penalized and removed from Google's index

Original Version of Content

- When Google crawls the same content on different web pages, it sometimes doesn't know which page to index in search results
- This is why the rel="canonical" tag was invented: to help search engines better index the preferred version of content and not all its duplicates
- The rel="canonical" tag allows you to tell search engines where the original, master version of a piece of content is located
- So, if you want to republish a piece of content, whether exactly or slightly modified, but don't want to risk creating duplicate content, the canonical tag is here to save the day.



Schema Markup

- Imagine being a search engine crawler scanning down a 10,000-word article about how to bake a cake; how do you identify the author, recipe, ingredients, or steps required to bake a cake?
- This is where **schema markup** comes in
- It allows you to spoon-feed search engines more specific classifications for what type of information is on your page
- Schema is a way to label or organize your content so that search engines have a better understanding of what certain elements on your web pages are
- This code provides structure to your data, which is why schema is often referred to as “structured data”
- The process of structuring your data is often referred to as “markup” because you are marking up your content with organizational code

Schema Markup (con't)

- Schema.org (often called Schema) is a semantic vocabulary of tags (or microdata) that you can add to your HTML to improve the way search engines read and represent your page in SERPs
- JSON-LD is Google's preferred schema markup (announced in May '16), which Bing also supports
- Example:
 - `<div itemscope itemtype="https://schema.org/Book">`
 - `<span itemprop="name">`
 - Inbound Marketing and SEO: Insights from the Moz Blog`</span>`
 - `<span itemprop="author">Rand Fishkin</span>`
 - `</div>`
- To view a full list of the thousands of available schema markups, visit Schema.org or view the Google Developers Introduction to Structured Data for additional information on how to implement structured data
- After you implement the structured data that best suits your web pages, you can test your markup with Google's Structured Data Testing Tool
- In addition to helping bots like Google understand what a particular piece of content is about, schema markup can also enable special features to accompany your pages in the SERPs
- These special features are referred to as "rich snippets," and you've probably seen them in action; they're things like:
 - Top Stories carousels, Review stars, Sitelinks search boxes

Inbound Marketing - Google Books

[books.google.com](#) > ... > Marketing > General ▾ Google Books ▾

★★★★★ Rating: 4 - 36 reviews

Oct 2, 2009 - Inbound Marketing is a how-to guide to getting found via Google, the blogosphere, and social media sites. • Improve your rankings in Google to ...

Link Building

- You've created content that people are searching for, that answers their questions, and that search engines can understand, but those qualities alone don't mean it'll rank
- To outrank the rest of the sites with those qualities, you have to establish authority
- That can be accomplished by earning links from authoritative websites, building your brand, and nurturing an audience who will help amplify your content
- Google has confirmed that links and quality content are two of the three most important ranking factors for SEO
- Trustworthy sites tend to link to other trustworthy sites, and spammy sites tend to link to other spammy sites

Link Building (con't)

- **Inbound links**, also known as backlinks or external links, are HTML hyperlinks that point from one website to another
- They're the currency of the Internet, as they act a lot like real-life reputation
- Since the late 1990s, search engines have treated links as votes for popularity and importance on the web
- **Internal links**, or links that connect internal pages of the same domain, work very similarly for your website
- A high amount of internal links pointing to a particular page on your site will provide a signal to Google that the page is important, so long as it's done naturally and not in a spammy way
- The engines themselves have refined the way they view links, now using algorithms to evaluate sites and pages based on the links they find

Anchor Text

- Anchor text usually gives the user relevant descriptive or contextual information about the content of the link's destination
- The anchor text may or may not be related to the actual text of the URL of the link; for example, a hyperlink to the English-language Wikipedia's homepage might take this form:
 - `<a href="http://en.wikipedia.org/wiki/Main_Page">Wikipedia</a>`
- "Wikipedia" is the anchor text in this example; the URL it points to is http://en.wikipedia.org/wiki/Main_Page
- The entire hyperlink appears on a web page as Wikipedia.
- Anchor text helps tell Google what the topic of your page is about
- If dozens of links point to a page with a variation of a word or phrase, the page has a higher likelihood of ranking well for those types of phrases
- However, proceed with caution - Too many backlinks with the same anchor text could indicate to the search engines that you're trying to manipulate your site's ranking in search results
- Describing the content of the target page with the anchor text helps them understand what the page is about, but the same description over and over from multiple sources starts to look suspicious

E-A-T

- Google's [Search Quality Rater Guidelines](#) put a great deal of importance on the concept of E-A-T — an acronym for expert, authoritative, and trustworthy
- Sites that don't display these characteristics tend to be seen as lower-quality in the eyes of the engines, while those that do are subsequently rewarded
- E-A-T is becoming more and more important as search evolves
- Creating a site that's considered expert, authoritative, and trustworthy should be your guiding light; not only will it simply result in a better site, but it's future-proof
- The more popular and important a site is, the more weight the links from that site carry
- To earn trust and authority with search engines, you'll need links from websites that display the qualities of E-A-T

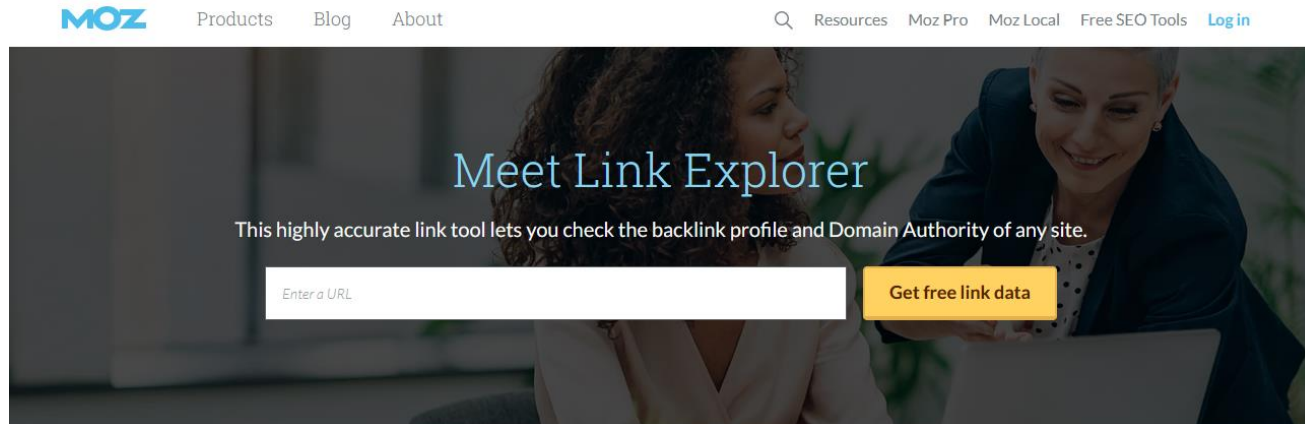
Link Profile

- Your link profile is an overall assessment of all the inbound links your site has earned:
 - The total number of links
 - Their quality (or spamminess)
 - Their diversity (is one site linking to you hundreds of times, or are hundreds of sites linking to you once?)
- The state of your link profile helps search engines understand how your site relates to other sites on the Internet
- There are various SEO tools that allow you to analyze your link profile and begin to understand its overall makeup

Link Audit

- The link audit is an analysis of “backlinks” (links that point to your site)
- This can be done using several free tools or comprehensive tools are available
- Visit Moz Link Explorer and type in your site's URL; you'll be able to see how many and which websites are linking back to you
 - <https://moz.com/link-explorer>
- Such an analysis should also include the quality of all the backlinks, and a list of links you don't desire
 - A disavow file can be submitted it to Google for review
- Also perform a link audit of competitors websites also

Link Explorer



How it works



Enter the URL of the website or page you want to get link data for.



Create a Moz account to access Link Explorer and other free SEO tools.



We send a notification to verify your email — help us keep the robots out.



Get a comprehensive analysis for the URL you entered, plus much more!

Healthy Link Profile

- When people began to learn about the power of links, they began manipulating them for their benefit
- They'd find ways to gain artificial links just to increase their search engine rankings
- While these dangerous tactics can sometimes work, they are against Google's terms of service and can get a website deindexed
- **You should always try to maintain a healthy link profile**
- A healthy link profile is one that indicates to search engines that you're earning your links and authority fairly. Just like you shouldn't lie, cheat, or steal, you should strive to ensure your link profile is honest and earned via good, old-fashioned hard work
- **Links are earned or editorially placed**
- Editorial links are links added naturally by sites and pages that want to link to your website.
- The foundation of acquiring earned links is almost always through creating high-quality content that people genuinely wish to reference
- This is where creating [10X content](#) (a way of describing extremely high-quality content) is essential! If you can provide the best and most interesting resource on the web, people will naturally link to it.
- Naturally earned links require no specific action from you, other than the creation of worthy content and the ability to create awareness about it

Healthy Link Profile (con't)

- When websites are referring to your brand or a specific piece of content you've published, they will often mention it without linking to it
- To find these earned mentions, use [Moz's Fresh Web Explorer](#)
- You can then reach out to those publishers to see if they'll update those mentions with links
- Links from websites within a topic-specific community are generally better than links from websites that aren't relevant to your site
- Additionally, links from topically irrelevant sources can send confusing signals to search engines regarding what your page is about.

Link Building

- Practices like buying links or engaging in a link exchange might seem like the easy way out, but doing so is dangerous and could put all of your hard work at risk. [Google penalizes sites with spammy link profiles](#), so don't give in to temptation.
- A guiding principle for your link building efforts is to never try to manipulate a site's ranking in search results.
- Google wants you to earn links, not build them, but the line between the two is often blurry
- To avoid penalties for unnatural links (known as "link spam"), Google has made clear what should be avoided:
 - **Purchased links** - Google and Bing both seek to discount the influence of paid links in their organic search results. While a search engine can't know which links were earned vs. paid for from viewing the link itself, there are clues it uses to detect patterns that indicate foul play. Websites caught buying or selling followed links risk severe penalties that will severely drop their rankings. (By the way, exchanging goods or services for a link is also a form of payment and qualifies as buying links.)
 - **Link exchanges / reciprocal linking** - If you've ever received a "you link to me and I'll link to you" email from someone you have no affiliation with, you've been targeted for a link exchange. Google's quality guidelines caution against "excessive" link exchange and similar partner programs conducted exclusively for the sake of cross-linking, so there is some indication that this type of exchange on a smaller scale might not trigger any link spam alarms. It is acceptable, and even valuable, to link to people you work with, partner with, or have some other affiliation with and have them link back to you; it's the exchange of links at mass scale with unaffiliated sites that can warrant penalties
 - **Low-quality directory links** - These used to be a popular source of manipulation. A large number of pay-for-placement web directories exist to serve this market and pass themselves off as legitimate, with varying degrees of success. These types of sites tend to look very similar, with large lists of websites and their descriptions (typically, the site's critical keyword is used as the anchor text to link back to the submitter's site).
 - There are [many more manipulative link building tactics](#) that search engines have identified. In most cases, they have found algorithmic methods for reducing their impact. As new spam systems emerge, engineers will continue to fight them with targeted algorithms, human reviews, and the collection of spam reports from webmasters and SEOs. By and large, it isn't worth finding ways around them.

Link Building (con't)

- Link building comes in many shapes and sizes, but one thing is always true: link campaigns should always match your unique goals
- There are some popular methods that tend to work well for most campaigns:
- Find customer and partner links - If you have partners you work with regularly, or loyal customers that love your brand, there are ways to earn links from them with relative ease. You might send out partnership badges (graphic icons that signify mutual respect), or offer to write up testimonials of their products. Both of those offer things they can display on their website along with links back to you.
- Publish a blog - This content and link building strategy is so popular and valuable that it's one of the few recommended personally by the engineers at Google. Blogs have the unique ability to contribute fresh material on a consistent basis, generate conversations across the web, and earn listings and links from other blogs. You should avoid low-quality guest posting just for the sake of link building. Google has advised against this and your energy is better spent elsewhere.
- Create unique resources - Creating unique, high-quality resources is no easy task, but it's well worth the effort. High quality content that is promoted in the right ways can be widely shared. It can help to create pieces that have the following traits:
 - Elicits strong emotions (joy, sadness, etc.)
 - Something new, or at least communicated in a new way
 - Visually appealing
 - Addresses a timely need or interest
 - Location-specific (example: the most searched-for halloween costumes by state).
 - Creating a resource like this is a great way to attract a lot of links with one page. You could also create a highly-specific resource — without as broad of an appeal — that targeted a handful of websites. You might see a higher rate of success, but that approach isn't as scalable.

Link Building (con't)

- Users who see this kind of unique content often want to share it with friends, and bloggers/tech-savvy webmasters who see it will often do so through links. These high-quality, editorially earned votes are invaluable to building trust, authority, and rankings potential.
- Build resource pages -Resource pages are a great way to build links. However, to find them you'll want to know some advanced Google operators to make discovering them a bit easier. This can also give you great ideas for content creation — just think about which types of resources you could create that these pages would all like to reference and link to.
- Get involved in your local community - For a local business (one that meets its customers in person), community outreach can result in some of the most valuable and influential links.
 - Engage in sponsorships and scholarship
 - Host or participate in community events, seminars, workshops, and organizations
 - Donate to worthy local causes and join local business associations
 - Post jobs and offer internships
 - Promote loyalty programs
 - Run a local competition
 - Develop real-world relationships with related local businesses to discover how you can team up to improve the health of your local economy

Engagement Metrics

- **Engagement metrics** is how people behaving once they reach your site
- Some of the most popular metrics for measuring how people engage with your content include:
 - **Conversion rate** - The number of conversions (for a single desired action/goal) divided by the number of unique visits. A conversion rate can be applied to anything, from an email signup to a purchase to account creation. Knowing your conversion rate can help you gauge the return on investment (ROI) your website traffic might deliver.
 - **Time on page** - How long did people spend on your page? If you have a 2,000-word blog post that visitors are only spending an average of 10 seconds on, the chances are slim that this content is being consumed (unless they're a mega-speed reader). However, if a URL has a low time on page, that's not necessarily bad either. Consider the intent of the page. For example, it's normal for "Contact Us" pages to have a low average time on page.
 - **Pages per visit** - Was the goal of your page to keep readers engaged and take them to a next step? If so, then pages per visit can be a valuable engagement metric. If the goal of your page is independent of other pages on your site (ex: visitor came, got what they needed, then left), then low pages per visit are okay.
 - **Bounce rate** - "Bounced" sessions indicate that a searcher visited the page and left without browsing your site any further. Many people try to lower this metric because they believe it's tied to website quality, but it actually tells us very little about a user's experience. We've seen cases of bounce rate spiking for redesigned restaurant websites that are doing better than ever. Further investigation discovered that people were simply coming to find business hours, menus, or an address, then bouncing with the intention of visiting the restaurant in person. A better metric to gauge page/site quality is scroll depth.
 - **Scroll depth** - This measures how far visitors scroll down individual webpages. Are visitors reaching your important content? If not, test different ways of providing the most important content higher up on your page, such as multimedia, contact forms, and so on. Also consider the quality of your content. Are you omitting needless words? Is it enticing for the visitor to continue down the page? Scroll depth tracking can be set up in your Google Analytics.
 - **Search traffic** - Ranking is a valuable SEO metric, but measuring your site's organic performance can't stop there. The goal of showing up in search is to be chosen by searchers as the answer to their query. If you're ranking but not getting any traffic, you have a problem.

Google Analytics (GA)

- Ranking is a valuable SEO metric, but measuring your site's organic performance can't stop there
- The goal of showing up in search is to be chosen by searchers as the answer to their query. If you're ranking but not getting any traffic, you have a problem
- But how do you even determine how much traffic your site is getting from search; one of the most precise ways to do this is with Google Analytics
- Google Analytics (GA) is bursting at the seams with data; some of the traffic data you can glean from GA:
 - **Isolate organic traffic** - GA allows you to view traffic to your site by channel. This will mitigate any scares caused by changes to another channel (ex: total traffic dropped because a paid campaign was halted, but organic traffic remained steady).
 - **Traffic to your site over time** - GA allows you to view total sessions/users/pageviews to your site over a specified date range, as well as compare two separate ranges.
 - **How many visits a particular page has received** - Site Content reports in GA are great for evaluating the performance of a particular page — for example, how many unique visitors it received within a given date range.
 - **Traffic from a specified campaign** - You can use UTM (urchin tracking module) codes for better attribution. [Designate the source, medium, and campaign](#), then append the codes to the end of your URLs. When people start clicking on your UTM-code links, that data will start to populate in GA's "campaigns" report.
 - **Click-through rate (CTR)** - Your CTR from search results to a particular page (meaning the percent of people that clicked your page from search results) can provide insights on how well you've optimized your page title and meta description. You can find this data in Google Search Console, a free Google tool.
 - In addition, Google Tag Manager is a free tool that allows you to manage and deploy tracking pixels to your website without having to modify the code

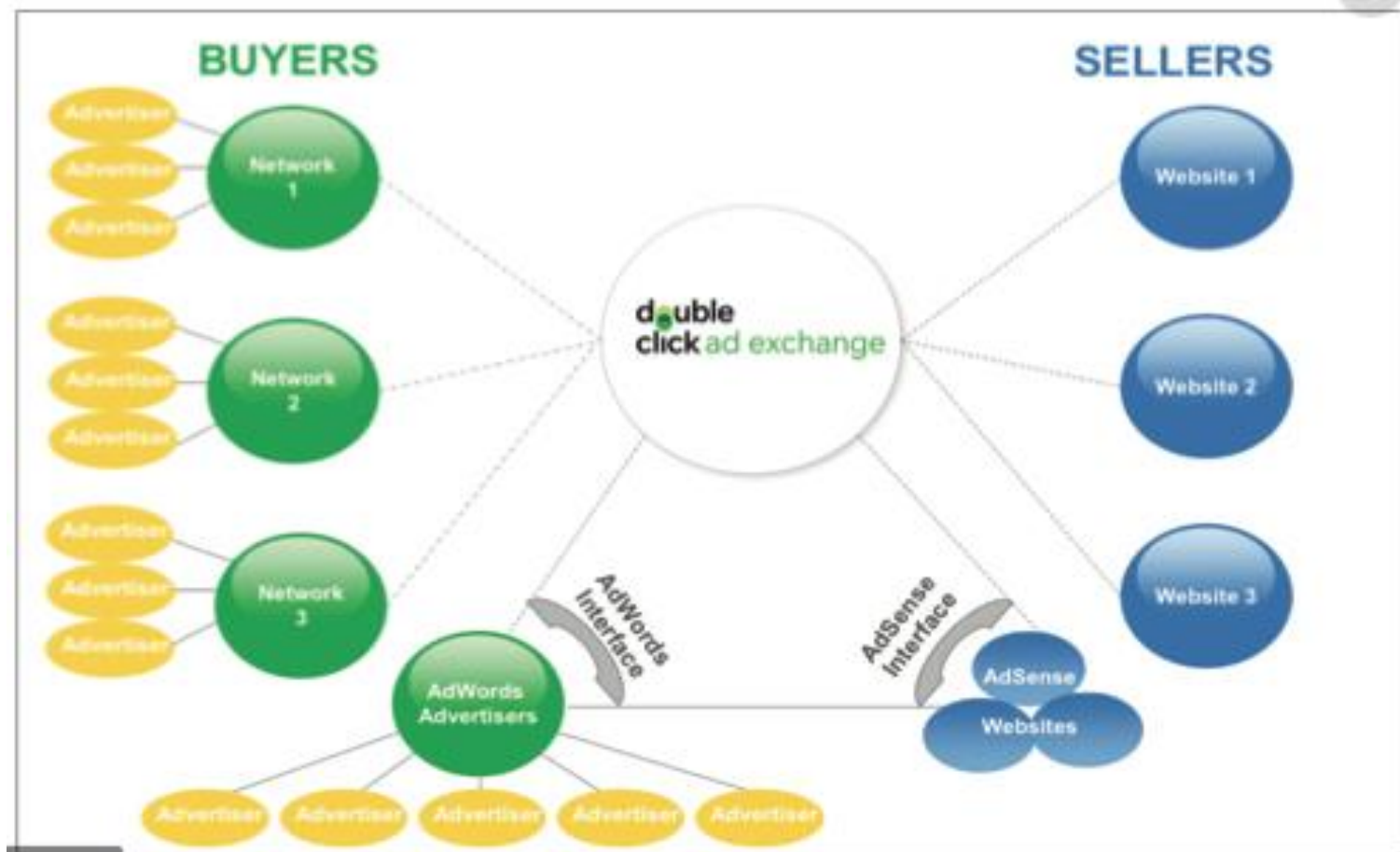
Digital Advertising Landscape



DoubleClick

- DoubleClick was founded in 1995 listed as "DCLK" on the Nasdaq and was initially purchased by [private equity](#) firms [Hellman & Friedman](#) and [JMI Equity](#) in July 2005
- On March 11, 2008, Google acquired DoubleClick for \$3.1 [billion](#)
- In June 2018, Google announced plans to rebrand its ads platforms, and DoubleClick was merged into the new [Google Marketing Platform](#) brand
- Core products adopted new names
- DoubleClick Bid Manager became Display and Video 360, DoubleClick Search became Search Ads 360, and DoubleClick for Publishers (DFP) became Google Ad Manager 360

DoubleClick Ad Exchange



Google Ads

- **Google Ads** (formerly **Google AdWords**) is an [online advertising](#) platform developed by [Google](#), where advertisers bid to display brief [advertisements](#), service offerings, product listings, or videos to web users
- It can place ads both in the results of search engines like [Google Search](#) (the Google Search Network) and on non-search websites, mobile apps, and videos (the Google Display Network)
- Google Ads' system is based partly on cookies and partly on keywords determined by advertisers
- Google uses these characteristics to place advertising copy on pages where they think it might be relevant
- **Advertisers pay when users divert their browsing to click on the advertising copy**; partner websites receive payments based on clicks or purchases
- Google Ads is [Alphabet Inc](#)'s main source of revenue, contributing US\$134.8 billion in 2019

Linking Google Ads to Google Analytics

- Linking your Google Ads and Google Analytics accounts gives you access to the entire picture of customer behavior, from ad click or impression through your site to conversion
- Once you've linked your accounts, you can use insights from GA to refine and optimize your Google Ads campaigns, improving the overall performance of your business
- When you link accounts, you:
 - Begin seeing ad and site performance data in the *Google Ads* reports in Analytics
 - Can import Analytics goals and Ecommerce transactions directly into your Google Ads account
 - Can also import valuable Analytics metrics—such as *Bounce Rate*, *Avg. Session Duration*, and *Pages/Session*—into your Google Ads account
 - Get enhanced Remarketing capabilities
 - Get richer data in the Analytics *Multi-Channel Funnels* reports

Google Ecosystem



Paid Media

"Earned"
Media

Google Ad Ecosystem

- Typically If a company wants to advertise a product/service online, it first designs the ad itself or hires a creative agency to design it
- That ad goes to a digital-ad ecosystem sch as Google's which is an array of buyer and seller platforms that manage ad-space inventory, auction off space, and track responses
- The ad is loaded onto a server, where it sits until the advertiser and publishers have agreed on price and placement
- Google's **Campaign Manager** competes with Innovid Inc. and Amazon.com Inc.'s Sizmek, among others

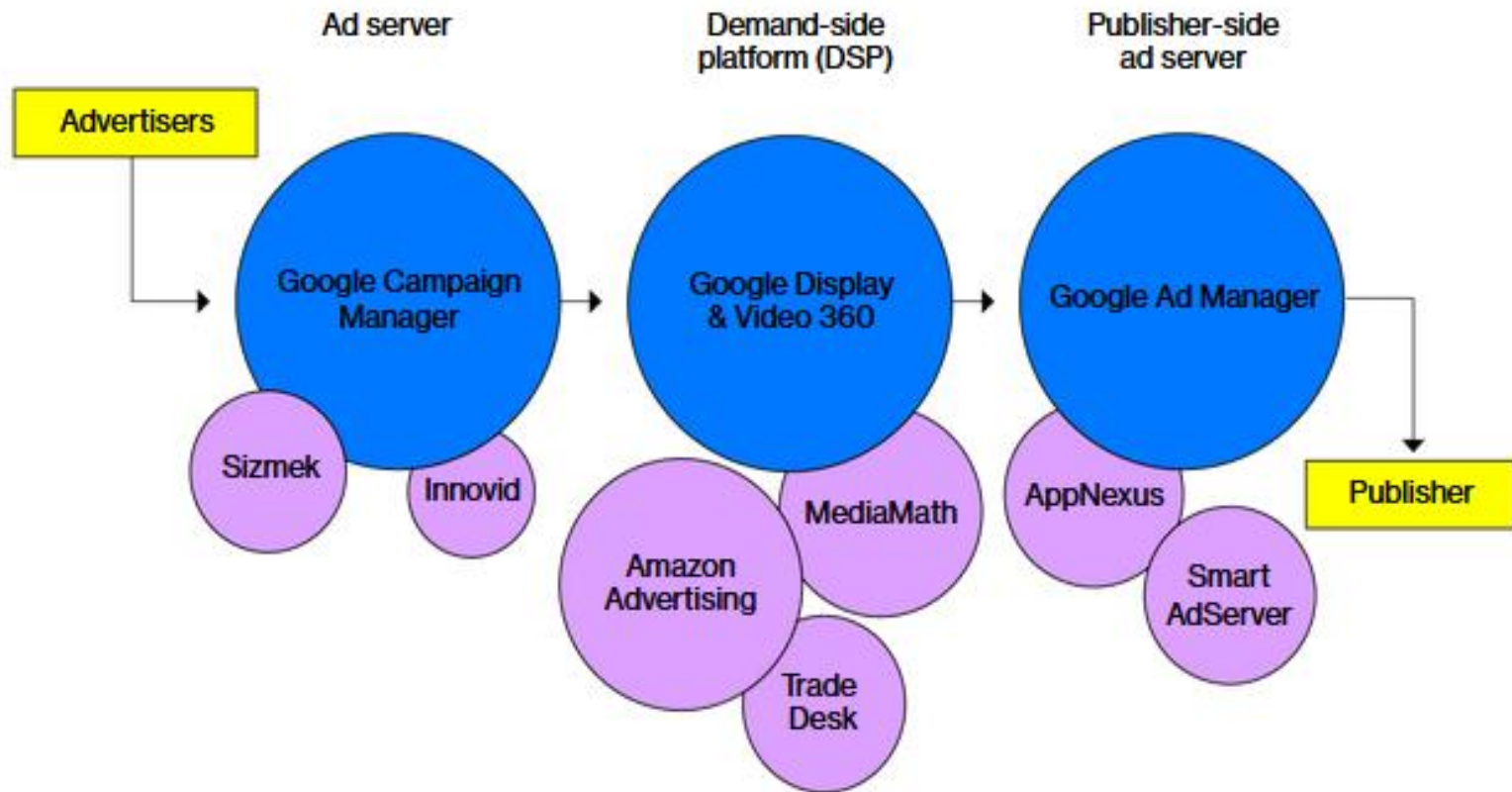
Google Ad Ecosystem (con't)

- **Demand-side platform (DSP)** - This is what an advertiser uses to see the available ad space and decide what it wants to buy
- **Google Display & Video 360** compete with Amazon Advertising, [Trade Desk Inc.](#), and [MediaMath Inc.](#)
- But if advertisers want access to YouTube, in most cases they have to use the Google DSP

Google Ad Ecosystem (con't)

- **Publisher-side ad server** - Here, websites including newspapers upload available ad space so the company can bid on it
- Once the sides agree on terms, the ad server sends the ad to the publisher's website
- **Google Ad Manager's** share of this business—estimated as high as 80%—dwarfs that of Smart AdServer SAS and AppNexus
- **Publisher** - The ads are uploaded in real time as viewers open a website

Google Ad Ecosystem (con't)



Google Networks

- Google has steadily bought up ad-tech companies over the years, making it the dominant force in the \$330 billion digital-ad market
- Much smaller industry rivals also seem to be growing as Trade Desk
- Still, almost every ad flying through the online ad ecosystem touches Google in some way
- The company also owns vast amounts of advertising space through its display network, YouTube, and search results
- Google divides their advertising world into into 5 networks: search, display, shopping, youtube, apps

Google Networks (con't)

Search

- Driving direct conversions
- Capturing high-intent buyers
- Providing on-the-spot solutions to immediate needs

Display

- Building brand affinity
- Expanding top-of-funnel prospect pools
- Indirectly increasing conversion rates and click-through-rates

Shopping

- Increasing qualified traffic
- Decreasing cost-per-action
- Showcasing compelling product creative

YouTube

- Generating impressions that matter
- Increasing reach and brand awareness
- Getting in on the vanguard of an exploding trend

Google Networks (con't)

- If you're just getting started, you should probably create an ad campaign exclusively on the Search Network
- Steer clear of the other networks until you have a campaign working on Search
- Then expand to the other networks one at a time
- Each network will likely require a different strategy, along with different ads and landing pages

The Search Network

- The Search Network is the ads on Google.com
- Plus, if you target the Search Partners, then you'll also show your ads on Ask.com, AOL.com, Amazon, and other partners of Google
- Every day your prospects are searching for your product or service and the Search network gives you the opportunity to show your offer at exactly the right time and place
- It's similar to the old Yellow Pages book
- But now people turn to Google, but the idea is the same
- Get in front of your prospects when they are looking for you rather than blasting ads into space and praying that your prospect needs what you're offering at that exact moment

The Display Network

- By default, Google will opt your ads into both the Search and Display networks
- So unless you took the time to change that particular setting, your ads are on the Display Network
- This can come as a nasty surprise when all along you thought your budget was all spent on Google.com
- You need to be aware of some key differences
- For one, your ads are not showing just on Google.com
- Your ads are going to be displayed across more than a million blogs, news sites, articles, videos, etc.
- Basically, the Display Network allows you to target your ads on any websites that display Google Ads
- About.com is an example of a very large site that you could target
- The second key difference with the Search Network is that on the Display Network you're targeting prospects who are not necessarily searching for your product or service
- That's why display advertising is sometimes called "interruption marketing," because you're interrupting your prospect as she's surfing around online
- For that reason, you typically need to use different ads and different landing pages for the Display Network
- The third key difference is that you have the option to use banner ads in addition to the traditional Google Ads text ad
- Banner ads give you more room for compelling copy, design, and even animation to capture more attention

The Shopping Network

- If you're running an e-commerce business, then you should take a look at Google's Shopping network
- Do a search in Google for some product and you'll see the shopping results
- Think of the Shopping network as a catalog
- You know your prospect is picking up a catalog to buy, it's just a matter of which store
- The same is true for many searches that trigger the Shopping results
- So use your product image, name, and price wisely
- That's all you get to use for your ads; there's no headline or ad description like the traditional Google Ads text ad

The Video Network

- Google purchased YouTube for \$1.65 billion, and added the TrueView ad format
- If you click a YouTube video and see a pre-roll video ad, then you've seen TrueView ads which are pre-roll videos similar to TV commercials
- But here's the key difference from commercials: you only pay for actual views of your ad which has a "Skip" button; and if the viewer clicks skip, then you (the advertiser) do not pay
- If your prospect watches a TV commercial, then she has to either pick up the phone to call or load up a browser to go visit your website
- With TrueView ads, your prospect can literally click on the video to go visit your website to learn more, make a purchase, complete a form, or get contact information

The App Network

- The App network targets mobile apps
- This is a good fit for businesses targeting the younger generation while they are on their mobile devices
- Also, if you want to promote your own app, then the App network is a great option
- By default, Google will show your ads on the App network if you're targeting the Display network
- So if you're advertising on the Display Network, chances are your ads are showing up in the App network without your approval
- If you would like to block the App network in a regular Display campaign, then exclude the placement for "adsenseformobileapps.com"

Google AdSense



- **Google AdSense** is a program run by Google that allows publishers in the Google Network of content sites to **serve automatic text, image, video, or interactive media advertisements and generate revenue from hosting the ads**
- These advertisements are administered, sorted, and maintained by Google
- They can **generate revenue for the website publisher** on either a per-click or per-impression basis
- Google earns about 1/5 of total revenue through Google AdSense
- AdSense is a participant in the [AdChoices](#) program, so AdSense ads typically include the triangle-shaped [AdChoices](#) icon

Google AdSense (con't)

- Google uses its technology to serve advertisements based on website content, the user's geographical location, and other factors
- Those wanting to advertise with Google's targeted advertisement system may enroll through Google Ads
- AdSense has become one of the popular programs that specializes in creating and placing banner advertisements on a website or blog, because the advertisements are less intrusive and the content of the advertisements is often relevant to the website
- Many websites use AdSense to make revenue from their web content (website, online videos, online audio content, etc.), and it is the most popular advertising network
- AdSense has been particularly important for delivering advertising revenue to small websites that do not have the resources for developing advertising sales programs and salespeople to seek out advertisers

AdChoices



- **AdChoices** is a self-regulatory program for online interest-based advertising that exists in the United States, Canada and across Europe
- The program calls **for advertising companies to establish and enforce responsible privacy practices for interest-based advertising, aimed to give consumers enhanced transparency and control**
- Companies adhere to a set of principles that are enforced by accountability programs
- "Interest-based advertising" (also known as "online behavioral advertising" or "behavioral targeting") selectively displays ads based on browsing history, primarily using cookies, to users most likely to identify with and respond to the ad's specific content
- The AdChoices icon is shown automatically by companies part of the self-regulatory program, and is meant to indicate to consumers when interest-based advertising data is being collected

SEO Glossary

- **10 blue links:** The format search engines used to display search results; ten organic results all appearing in the same format.
- **2xx status codes:** A class of status codes that indicate the request for a page has succeeded.
- **4xx status codes:** A class of status codes that indicate the request for a page resulted in error.
- **5xx status codes:** A class of status codes that indicate the server's inability to perform the request.
- **Advanced search operators:** Special characters and commands you can type into the search bar to further specify your query.
- **Alt text:** Alternative text is the text in HTML code that describes the images on web pages.
- **Ambiguous intent:** Refers to a search phrase where the goal of the searcher is unclear and requires further specification.
- **Anchor text:** The text with which you link to pages.
- **Auto-generated content:** Content that is created programmatically, not written by humans.
- **Backlinks:** Or "inbound links" are links from other websites that point to your website.
- **Black hat:** Search engine optimization practices that violate Google's quality guidelines.
- **Bots:** Also known as "crawlers" or "spiders," these are what scour the Internet to find content.

Glossary (con't)

- **Caching:** A saved version of your web page.
- **Caffeine:** Google's web indexing system. Caffeine is the index, or collection of web content, whereas Googlebot is the crawler that goes out and finds the content.
- **Citations:** Also known as a "business listing," a citation is a web-based reference to a local business' name, address, and phone number (NAP).
- **Cloaking:** Showing different content to search engines than you show to human visitors.
- **Commercial investigation queries:** A query in which the searcher wants to compare products to find the one that best suits them.
- **Crawl budget:** The average number of pages a search engine bot will crawl on your site
- **Crawler directives:** Instructions to the crawler regarding what you want it to crawl and index on your site.
- **Crawling:** The process by which search engines discover your web pages.
- **De-indexed:** Refers to a page or group of pages being removed from Google's index.
- **Distance:** In the context of the local pack, distance refers to proximity, or the location of the searcher and/or the location specified in the query.

Glossary (con't)

- **Duplicate content**: Content that is shared between domains or between multiple pages of a single domain.
- **Engagement**: Data that represents how searchers interact with your site from search results.
- **Featured snippets**: Organic answer boxes that appear at the top of SERPs for certain queries.
- **Geographic modifiers**: Terms that describe a physical location or service area. For example, “pizza” is not geo-modified, but “pizza in Seattle” is.
- **Google My Business listing**: A free listing available to local businesses.
- **Google Quality Guidelines**: Published guidelines from Google detailing tactics that are forbidden because they are malicious and/or intended to manipulate search results.
- **Google Search Console**: A free program provided by Google that allows site owners to monitor how their site is doing in search.
- **Image carousels**: Image results in some SERPs that are scrollable from left to right.
- **Image compression**: The act of speeding up web pages by making image file sizes smaller without degrading the image’s quality.
- **Image sitemap**: A sitemap containing only the image URLs on a website.
- **Index Coverage report**: A report in Google Search Console that shows you the indexation status of your site’s pages.

Glossary (con't)

- **Index:** A huge database of all the content search engine crawlers have discovered and deem good enough to serve up to searchers.
- **Indexing:** The storing and organizing of content found during crawling.
- **Informational queries:** A query in which the searcher is looking for information, such as the answer to a question.
- **Intent:** In the context of SEO, intent refers to what users really want from the words they typed into the search bar.
- **Internal links:** Links on your own site that point to your other pages on the same site.
- **Keyword Difficulty:** At Moz, Keyword Difficulty is an estimate, in the form of a numerical score, of how difficult it is for a site to outrank their competitors.
- **Keyword Explorer:** A Moz tool for in-depth keyword research and discovery.
- **Keyword stuffing:** A spammy tactic involving the overuse of important keywords and their variants in your content and links.
- **KPI:** A “key performance indicator” is a measurable value that indicates how well an activity is achieving a goal.
- **Link accessibility:** The ease with which a link can be found by human visitors or crawlers.

Glossary (con't)

- **Link equity:** The value or authority a link can pass to its destination.
- **Link volume:** The quantity of links on a page.
- **Local business schema:** Structured data markup placed on a web page that helps search engines understand information about a business.
- **Local pack:** A pack of typically three local business listings that appear for local-intent searches such as “oil change near me.”
- **Local queries:** A query in which the searcher is looking for something in a specific location, such as “coffee shops near me” or “gyms in Brooklyn.”
- **Login forms:** Refers to pages that require login authentication before a visitor can access the content.
- **Long-tail keywords:** Longer queries, typically those containing more than three words. Indicative of their length, they are often more specific than short-tail queries.
- **Manual penalty:** Refers to a Google “Manual Action” where a human reviewer has determined certain pages on your site violate Google’s quality guidelines.
- **Meta descriptions:** HTML elements that describe the contents of the page that they’re on. Google sometimes uses these as the description line in search result snippets.
- **Meta robots tag:** Pieces of code that provide crawlers instructions for how to crawl or index web page content.

Glossary (con't)

- **Navigation:** A list of links that help visitors navigate to other pages on your site. Often, these appear in a list at the top of your website (“top navigation”), on the side column of your website (“side navigation”), or at the bottom of your website (“footer navigation”).
- **Navigational queries:** A query in which the searcher is trying to get to a certain location, such as the Moz blog (query = “Moz blog”).
- **NoIndex tag:** A meta tag that instructs a search engine not to index the page it's on.
- **Organic:** Earned placement in search results, as opposed to paid advertisements.
- **PageRank:** A component of Google's core algorithm. It is a link analysis program that estimates the importance of a web page by measuring the quality and quantity of links pointing to it.
- **Panda:** A Google algorithm update that targeted low-quality content.
- **People Also Ask boxes:** A box in some SERPs featuring a list of questions related to the query and their answers.
- **Personalization:** Refers to the way a search engine will modify a person's results on factors unique to them, such as their location and search history.
- **Prominence:** In the context of the local pack, prominence refers to businesses that are well-known and well-liked in the real world.

Glossary (con't)

- **Protocol:** The “http” or “https” preceding your domain name. This governs how data is relayed between the server and browser.
- **RankBrain:** the machine learning component of Google’s core algorithm that adjusts ranking by promoting the most relevant, helpful results.
- **Ranking:** Ordering search results by relevance to the query.
- **Redirection:** When a URL is moved from one location to another. Most often, redirection is permanent (301 redirect).
- **Regional keywords:** Refers to keywords unique to a specific locale. Use Google Trends, for example, to see whether “pop” or “soda” is the more popular term in Kansas.
- **Rel=canonical:** A tag that allows site owners to tell Google which version of a web page is the original and which are the duplicates.
- **Relevance:** In the context of the local pack, relevance is how well a local business matches what the searcher is looking for
- **Robots.txt:** Files that suggest which parts of your site search engines should and shouldn't crawl.
- **Scraped content:** Taking content from websites that you do not own and republishing it without permission on your own site.
- **Search forms:** Refers to search functions or search bars on a website that help users find pages on that website.

Glossary (con't)

- **Search Quality Rater Guidelines:** Guidelines for human raters that work for Google to determine the quality of real web pages.
- **Search volume:** The number of times a keyword was searched. Many keyword research tools show an estimated monthly search volume.
- **Seasonal trends:** Refers to the popularity of keywords over time, such as “Halloween costumes” being most popular the week before October 31.
- **Seed keywords:** The term we use to describe the primary words that describe the product or service you provide.
- **SERP features:** Results displayed in a non-standard format.
- **SERP:** Stands for “search engine results page” — the page you see after conducting a search.
- **Sitemap:** A list of URLs on your site that crawlers can use to discover and index your content.
- **Spammy tactics:** Like “black hat,” spammy tactics are those that violate search engine quality guidelines.
- **SSL certificate:** A “Secure Sockets Layer” is used to encrypt data passed between the web server and browser of the searcher.

Glossary (con't)

- **Thin content:** Content that adds little-to-no value to the visitor.
- **Thumbnails:** Image thumbnails are a smaller version of a larger image.
- **Title tag:** An HTML element that specifies the title of a web page.
- **Transactional queries:** The searcher wants to take an action, such as buy something. If keyword types sat in the marketing funnel, transactional queries would be at the bottom.
- **URL folders:** Sections of a website occurring after the TLD (".com"), separated by slashes ("/"). For example, in "moz.com/blog" we could say "/blog" is a folder.
- **URL parameters:** Information following a question mark that is appended to a URL to change the page's content (active parameter) or track information (passive parameter).
- **Webmaster guidelines:** Guidelines published by search engines like Google and Bing for the purpose of helping site owners create content that will be found, indexed, and perform well in search results.
- **White hat:** Search engine optimization practices that comply with Google's quality guidelines.
- **X-robots-tag:** Like meta robots tags, this tag provides crawlers instructions for how to crawl or index web page content.



Example Student Design Reports





■ Users, Content & Priority:

- The users of this website will be specifically looking for a product that allows their own customers to charge their devices while waiting in the designated seating area.
- The content of this website will provide the customer with options, specs and contact information if they choose to inquire about pricing and/or quantities.
- Finally, the priority of this website will be to resemble a brochure, in the sense that no business will be done of the actual website. The customer must contact the company in order to begin a purchase order, receive an invoice, etc.





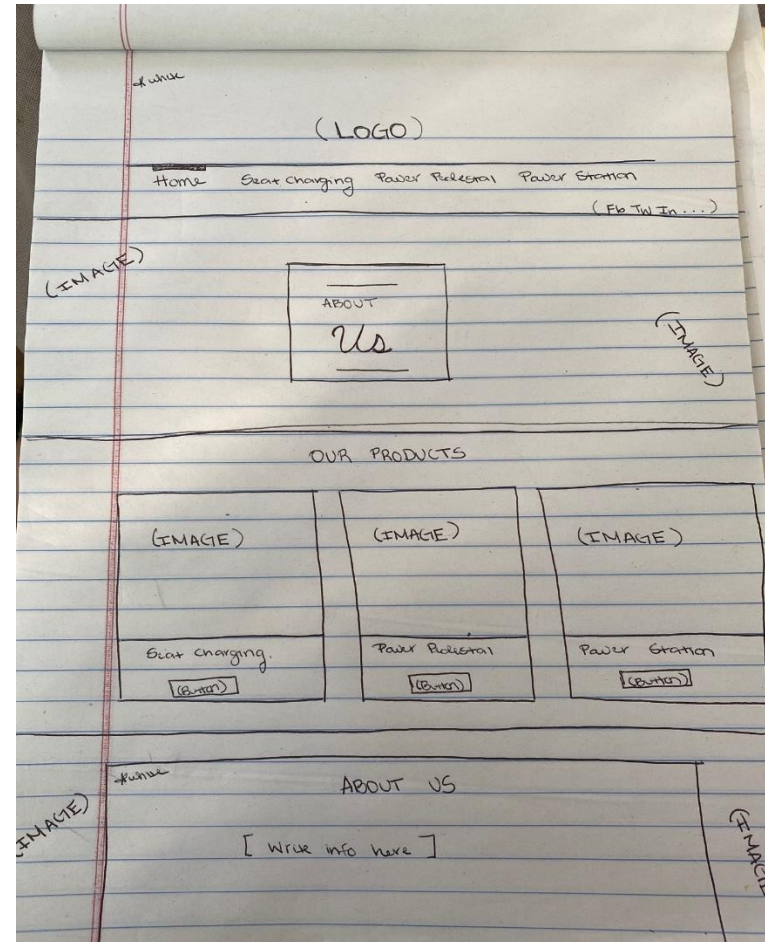
■ Similar Business Websites:

■ Arconas

- <https://www.arconas.com/product/inpower-flex-3/>

■ Zoeflig

- <https://www.zoeflig.com/products/seating-systems-in-seat-power>



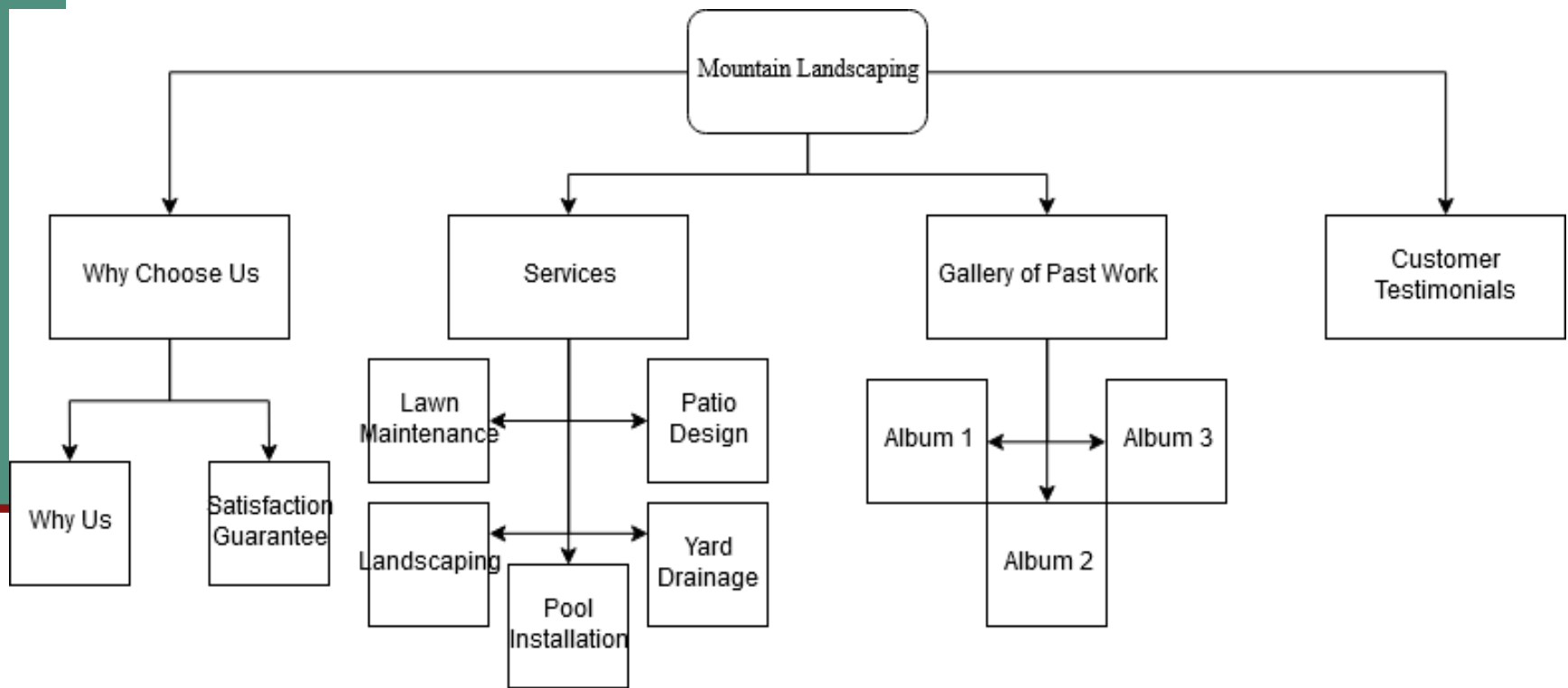


- How will you communicate your brand?
 - Through images, descriptive summaries and a simplistic design.
- What content will make this site unique and attractive?
 - The fact that the minimalist style makes user want to further investigate the product.
- What will keep visitors coming back?
 - Their need for more products, once they realize how good the product is then they will come back.
- What sort of interactive content does the site need?
 - The only interactive content needed is, perhaps, downloadable product details/blueprints.
- Should the site include some form of entertainment to keep people interested?
 - No, because this website's content isn't about "entertainment". Instead, to keep people interested, we will provide them with the information they came to the website looking for.
- Should we build a community through message boards, memberships, chat areas, and special interest areas?
 - No, it's not that kind of website. We won't be a marketplace. Simply a site that holds the images and dimensions of the product as well as the contact information of the company.
- What multimedia components might facilitate meeting our objectives?
 - Maybe just images of the products installed in other public places.
- Should we include a mission statement and/or company profile?
 - No, because the people who come to the website already know what they want. They don't need to be further convinced.



- Should the site include a help section that allows users to provide feedback and contact the organization?
 - Perhaps, but maybe in the form of contact information rather than a form they have to submit.
- Should the site include product pictures and descriptions?
 - Yes, that is essential.
- Should the site include descriptions of services, fees, and related information?
 - Perhaps, but the information still needs to be ambiguous because the company works on everything contract to contract.
- How can the site be categorized? Should it be categorized?
 - Yes, it will be categorized by different products.
- Will the site require the use of forms?
 - No, we want the customer to contact the seller directly, through personal emails or the phone.
- Will the site need to be tied to a data source or database?
 - No, because the website doesn't need to be that sophisticated. No business will be done over the website. It is merely an online brochure.
- Should be include external links? To what sites?
 - No external links will be provided at this time.

Design Diagram



Planning & Design Questions

- 1.How will you communicate your brand? By targeting Harry Potter fans who are Ravenclaws.
- 2.What content will make this site unique and attractive? The vibrant landscapes used as our backdrop and website design.
- 3.What will keep visitors coming back? Our high-quality landscaping services.
- 4.What sort of interactive content does the site need? Different services to view.
- 5.Should the site include some form of entertainment to keep people interested? No.
- 6.Should we build a community through message boards, memberships, chat areas, and special interest areas? No.
- 7.What multimedia components might facilitate meeting our objectives? Pictures.
- 8.Should we include a mission statement and/or company profile? Yes.
- 9.Should the site include a help section that allows users to provide feedback and contact the organization? Yes.

Planning & Design Questions (con't)

- 10. Should the site include product pictures and descriptions? Yes. The site will include pictures of our past work.
- 11. Should the site include descriptions of services, fees, and related information? No, the prices for our services can vary depending on the property in question.
- 12. How can the site be categorized? Should it be categorized? Yes. By different services.
- 13. Will the site require the use of forms? Yes, to collect user contact information.
- 14. Will the site need to be tied to a data source or database? Yes, to let customers sign up for our newsletter or to schedule an appointment with one of our landscaping consultants.
- 15. Should we include external links? No.

Logo

Why Us

Services

Gallery

Testimonials

CONTACT US

(background
picture of
backyard)

landing text, catchy
slogan

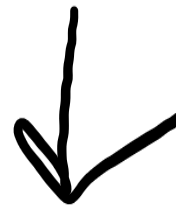
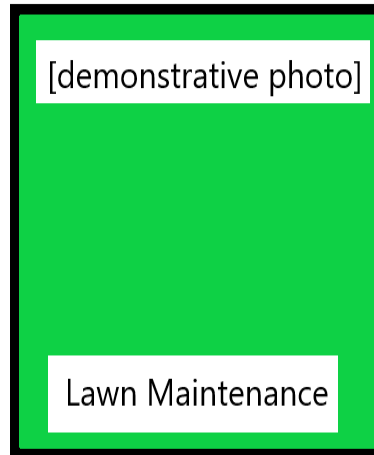
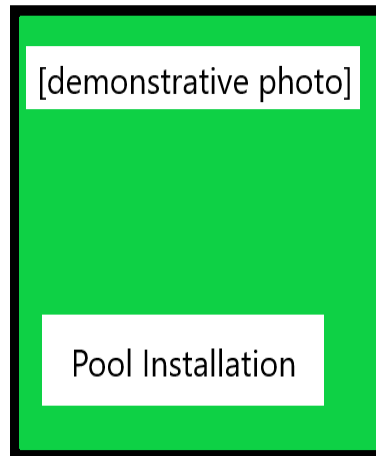
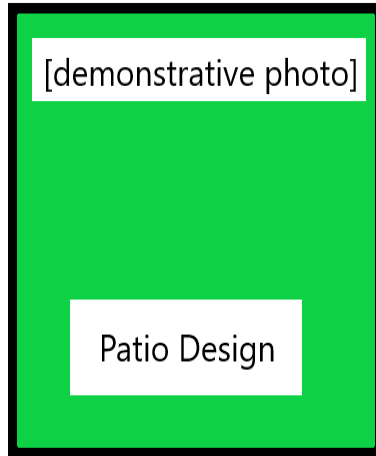
continued from
page 1

satisfaction
guarantee

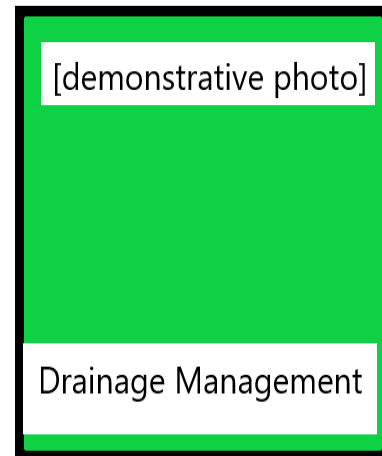
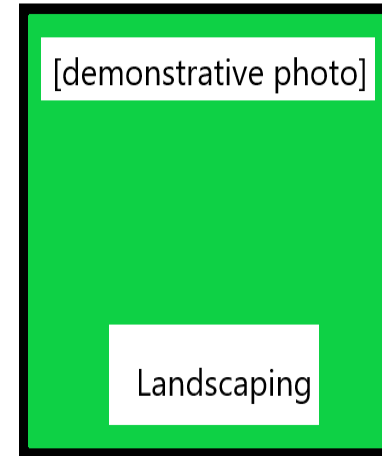
why us?
credentials, etc.

page 3

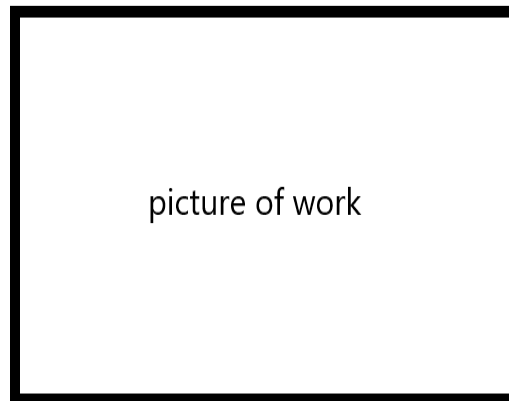
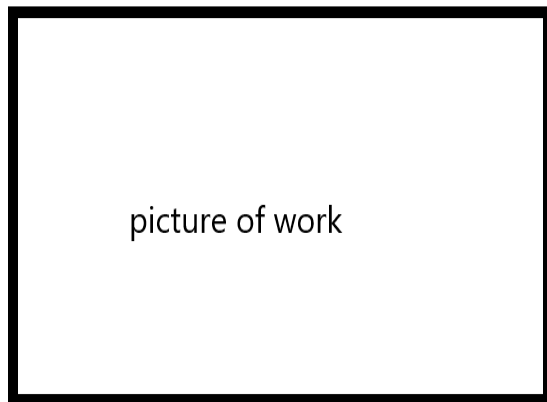
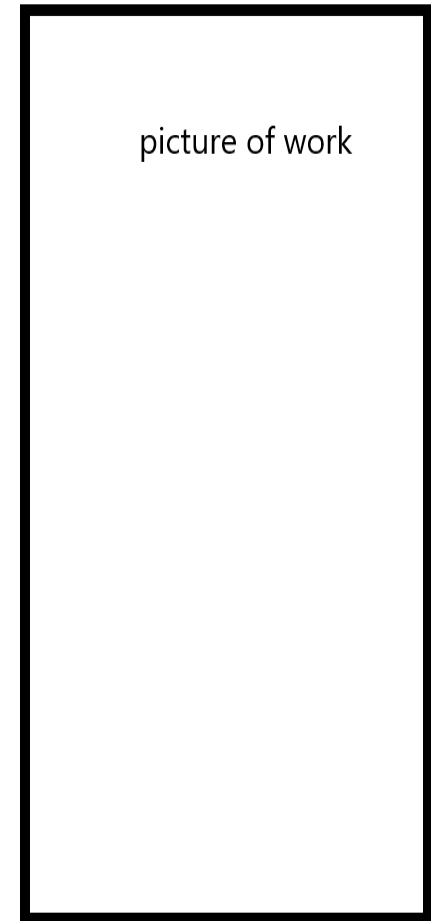
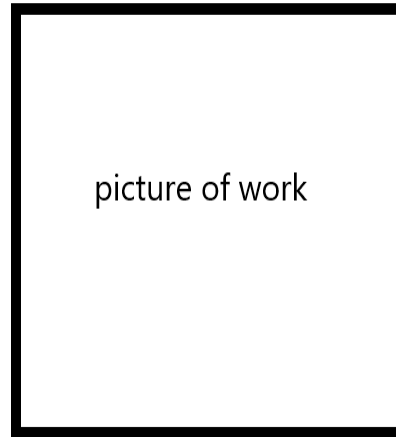
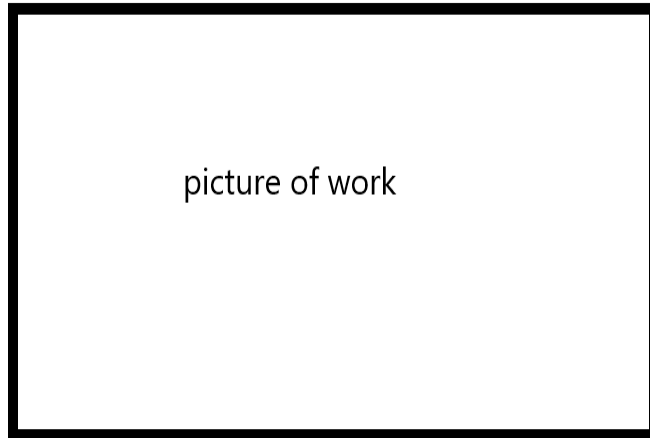
our services



page 4



previous work





continued from page 4

testimonial from
customer

testimonial from
customer

testimonial from
customer



want to know more?

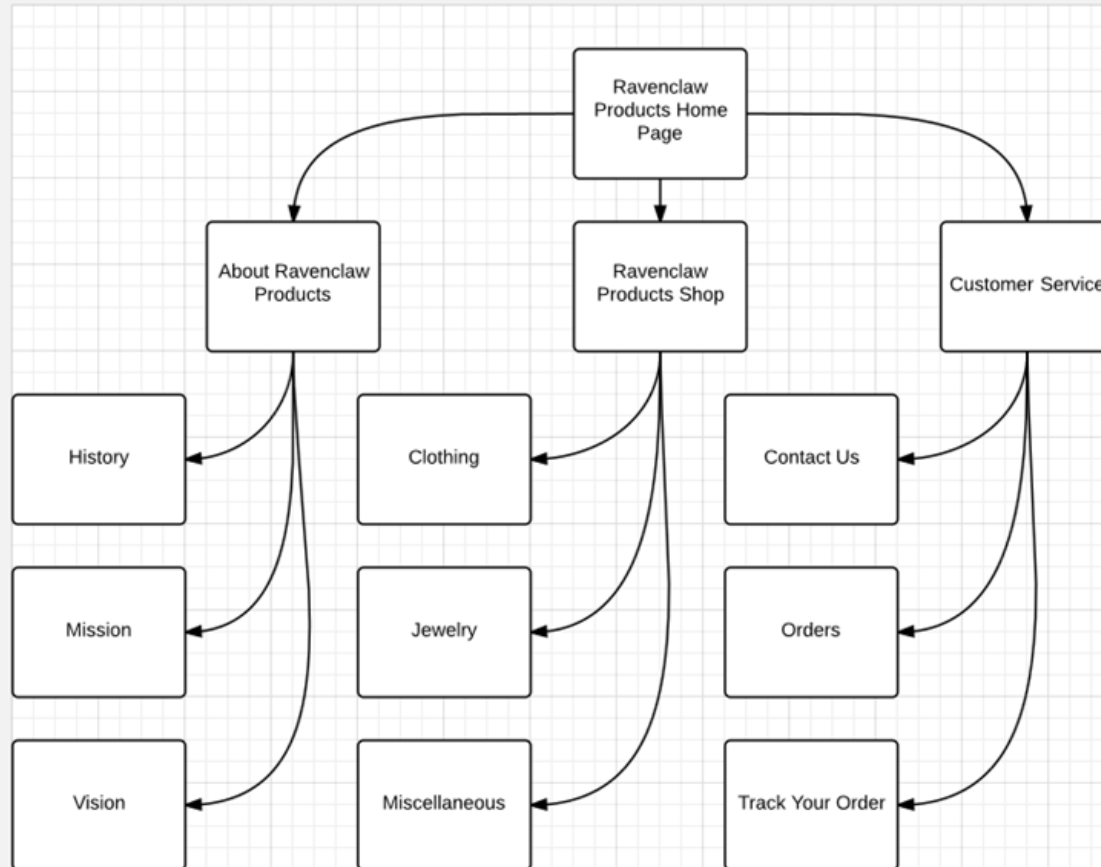
name

phone #

email

how can we help you?

Design Tree Diagram



Planning And Design Questions

1. **How will you communicate your brand?** *By targeting Harry Potter fans who are Ravenclaws.*
2. **What content will make this site unique and attractive?** *The House colors and products sold.*
3. **What will keep visitors coming back?** *Having new products and having a wide variety of them.*
4. **What sort of interactive content does the site need?** *Different products to view and click on.*
5. **Should the site include some form of entertainment to keep people interested?** *No.*
6. **Should we build a community through message boards, memberships, chat areas, and special interest areas?** *Yes, that way we can actually have a real Hogwarts House of Ravenclaw.*
7. **What multimedia components might facilitate meeting our objectives?** *Harry Potter music.*
8. **Should we include a mission statement and/or company profile?** *Yes.*
9. **Should the site include a help section that allows users to provide feedback and contact the organization?** *Yes.*
10. **Should the site include product pictures and descriptions?** *Yes, definitely.*
11. **Should the site include descriptions of services, fees, and related information?** *Yes, it's a shopping site.*
12. **How can the site be categorized? Should it be categorized?** *Yes it should, by different products.*
13. **Will the site require the use of forms?** *Yes, when users make a purchase.*
14. **Will the site need to be tied to a data source or database?** *Yes, for order history, customer profiles, etc.*
15. **Should we include external links? To what sites?** *Yes, sites like Pottermore or etc.*



DALIA CLOTHING

Example Student Project 2

Mission Statement

As a clothing shop, we will provide quality, trendy and in theme clothing for all shapes and sizes. Dalia Clothing hopes to have an impact on your beauty and confidence. Putting on a piece from us to start off a great day.

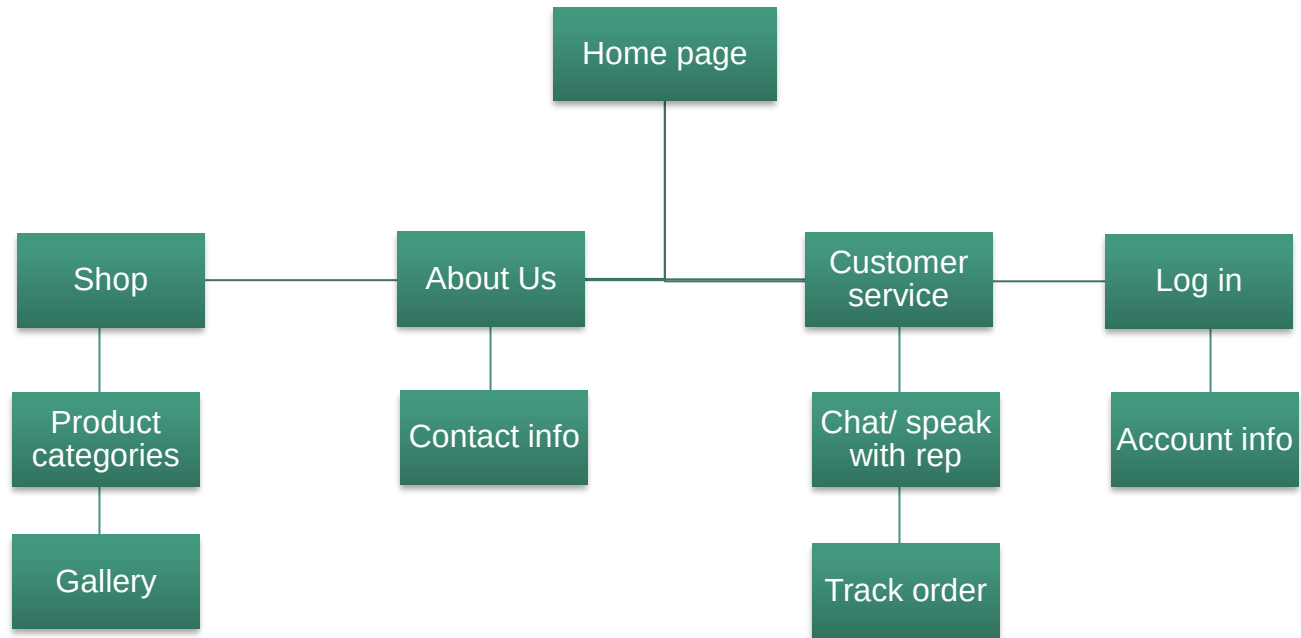


Users, Content, Priority

Users: Customers most likely will be females shopping for trendy and in season clothing.

Content: This website will provide all the options of clothing that customers will be able to choose from as well as pricing, about us, contact information, and support.

Priority: Main priority is to make a simple and aesthetically pleasing website that would attract customer to stay and look at our clothing that leads to them purchasing from us.



Planning and Design

1. I will communicate my brand by using social media as our source of promoting.
2. The content that will make this site unique and attractive will be how pleasing and simple the layout of the website is. Mainly focusing on our products and how they go in theme and match the website.
3. The things that will keep customers from coming back is the pricing of the products, unique styles to select from, and how well the company is at treating customers. They are the main priority.
4. The sorts of interactive content that this site will need is since this is a clothing website for women clothing, content that allows customers to see how the clothing would look on themselves and being able to match clothing that they have in their cart together to see how they look together.
5. This website will use user's content that they make with clothing just to show how other customers style clothing. This will be found in gallery. Photos from Instagram, reels or TikTok content.
6. Message chats and social media content will help build a community on our site.
7. Multimedia components that will facilitate meeting objectives are pictures and videos.
8. Mission statement and an about us will be included

-
9. This site will use a help section that gives reviews/ feedback to the company as well as being able to contact the business.
 10. Product pictures and descriptions will be provided on the website.
 11. Descriptions of our products will be provided.
 12. This site can be categorized by the products that we are selling as well as other information on the business itself.
 13. This site will use forms to make order and for their log in information.
 14. This site will be tied to a database that will allow them to create a log in as well as to be able to track order if they do not have a log in profile
 15. External links will be included.

LOGO



Page Prototypes



Pictures of clothing being modeled

Contact us Policies Social media Forms of pay

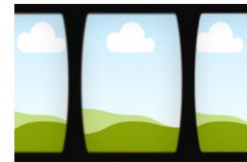


Pictures of products
(can also click on them to lead to the rest of that category)

Contact us Policies Social media Forms of pay



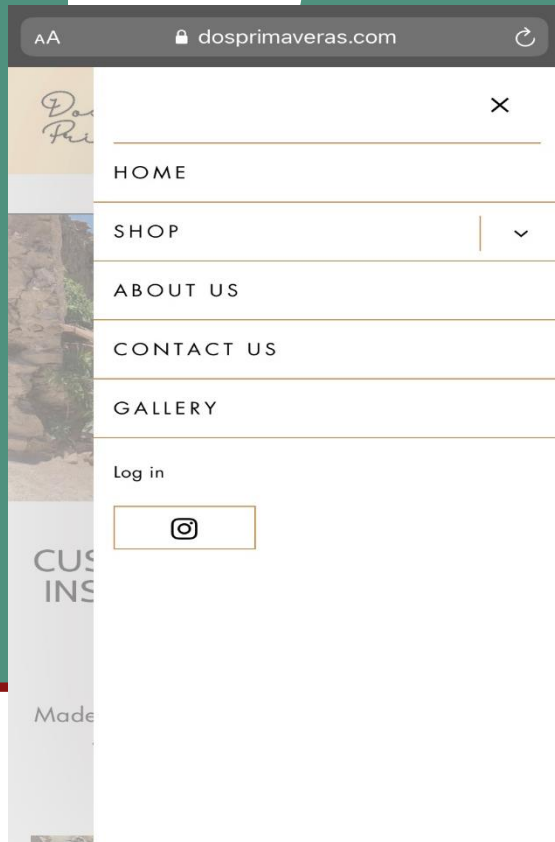
Mission statement



Content from customers and pr rep

Contact us Policies Social media Forms of pay

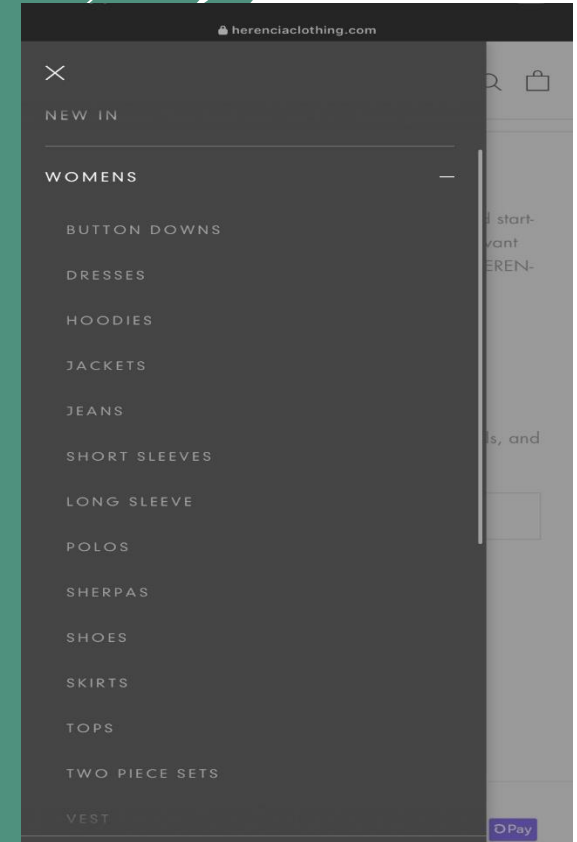
Similar Business Websites



<https://dosprimaveras.com>



<https://herenciaclathing.com/>

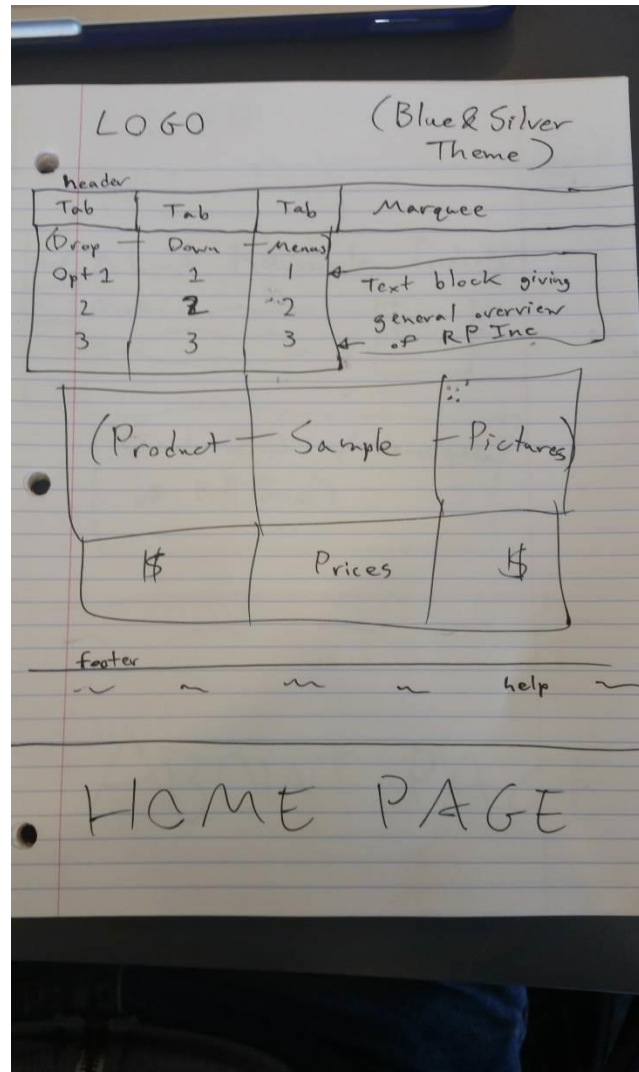


Logo

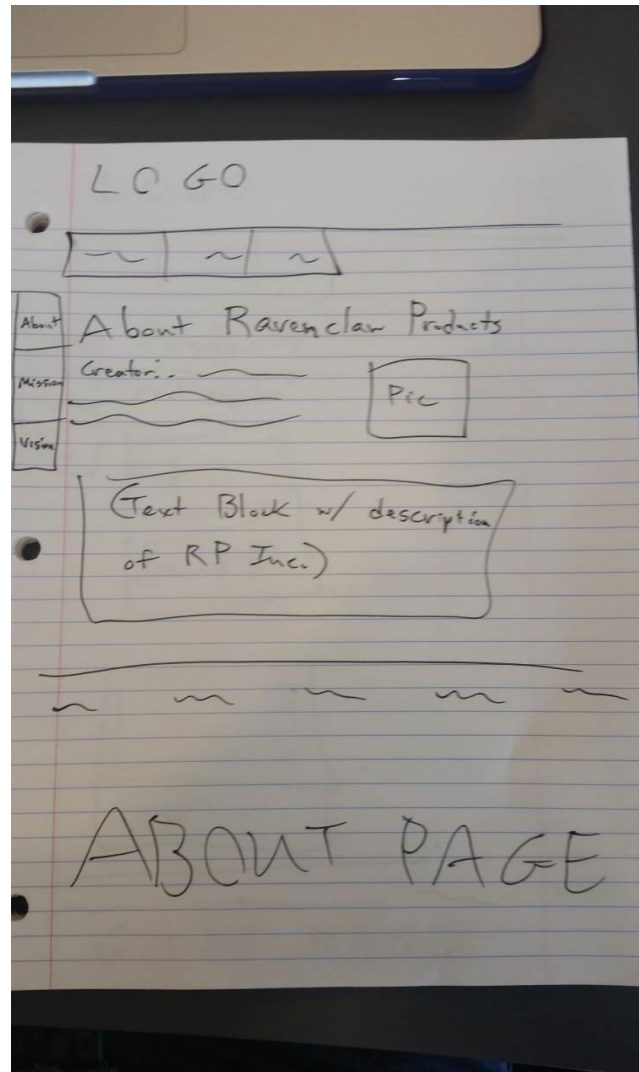


RAVENCLAW PRODUCTS

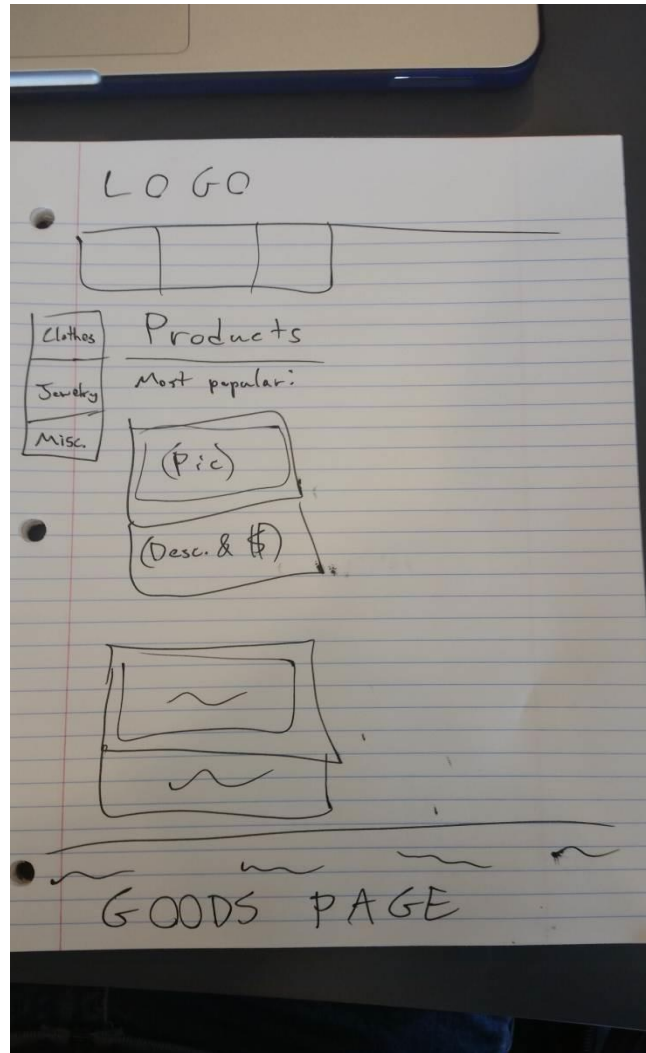
Storyboard 1



Storyboard 2



Storyboard 3

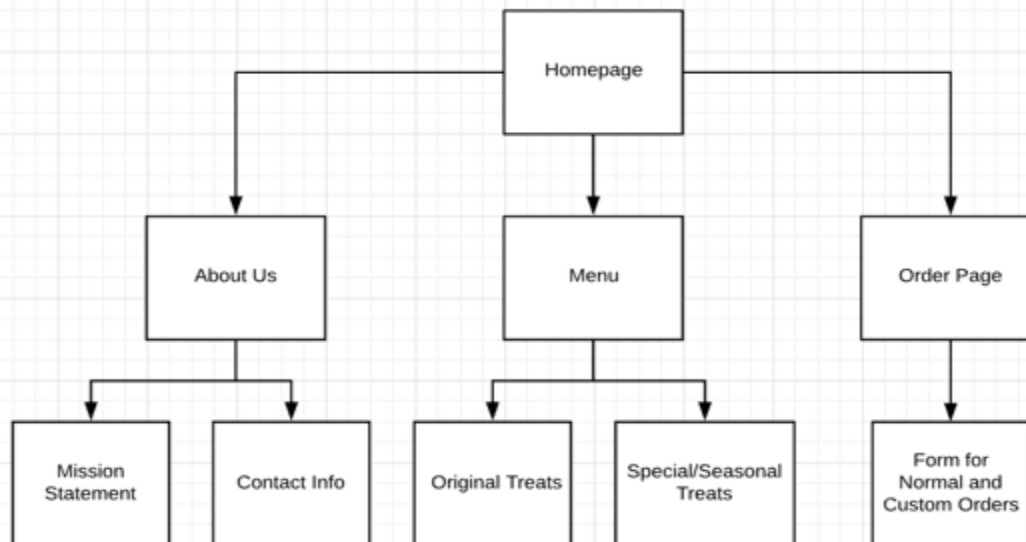


Vegan Sweets

Users, Content, Priority

Priority 1	Priority 2	Priority 3
welcome statement	pages	link to PETA
logo	menu	
primary navigation links	order form	
address & contact information		

Design diagram (layout)



Vegan Sweets (con't)

- Research was done on business sites similar to the one I'm creating, and notable websites were from these companies: The Vegan Cakery, Imagine Vegan Café, and Happy Zoe Vegan Bakery
- Planning Questions:
 - How will you communicate your brand? (if applicable)
 - My brand will be communicated by appealing to the vegan community and showing them that desserts can be delicious and vegan!
 - What content will make this site unique and attractive?
 - Pictures of our delicious vegan baked goods(family recipes!) and a calming color scheme will make this site unique.
 - What will keep visitors coming back?
 - Our tasty and aesthetically pleasing desserts at affordable prices will keep visitors coming back.
 - What sort of interactive content does the site need?
 - The site will have a fillable form for dessert orders(custom and specialized).
 - Should the site include some form of entertainment to keep people interested?
 - To go with the aesthetics of our brand, we will have a link to PETA so that our customers can keep up with news in the vegan community.
 - Should we build a community through message boards, memberships, chat areas, and special interest areas?
 - No, there won't be a community through message boards, memberships, chat areas, and special interest areas.
 - What multimedia components might facilitate meeting our objectives?
 - A slideshow might facilitate meeting our objective but may or may not be included depending on the site design we choose.
 - Should we include a mission statement and/or company profile?
 - Yes, we will include a mission statement on our site.
 - Should the site include a help section that allows users to provide feedback and contact the organization?
 - There won't be a help section, but we will provide a way for users to contact us with any feedback or concerns.
 - Should the site include product pictures and descriptions?
 - Absolutely, our site will include our desserts and their descriptions, which will change periodically.
 - Should the site include descriptions of services, fees, and related information?
 - Yes, so users can know prices without having to come to the bakery.
 - How can the site be categorized? Should it be categorized?
 - Since we only have desserts, we will have our desserts all listed under one menu. There may be categorization for seasonal items.
 - Will the site require the use of forms?
 - Yes, a form will be used for orders.
 - Will the site need to be tied to a data source or database?
 - At this time, the site will not need to be tied to a database.
 - Should we include external links? To what sites?
 - An external link to PETA will be included to share news with the vegan community.



Vegan Sweets (con't)

Logo

ABOUT US	MENU	ORDER
----------	------	-------

Photos of Inside & Outside of Bakery

Mission Statement

Twitter
Instagram
Facebook
PETA LINK

Address
Phone Number
Email

Logo

ABOUT US	MENU	ORDER
----------	------	-------

Seasonal Items: (Picture, price)

☐ and ☐	☐ and ☐	☐ and ☐	☐ and ☐
Name	Name	Name	Name

Regular Menu items: Picture, price

☐ and ☐	☐ and ☐	☐ and ☐	☐ and ☐
Name	Name	Name	Name

Twitter
Instagram
Facebook

Address
Phone Number
Email

Logo

ABOUT US	MENU	ORDER
----------	------	-------

ORDER FORM

First Name

Last Name

Email

Phone Number

Date needed by

Items

Special Requests

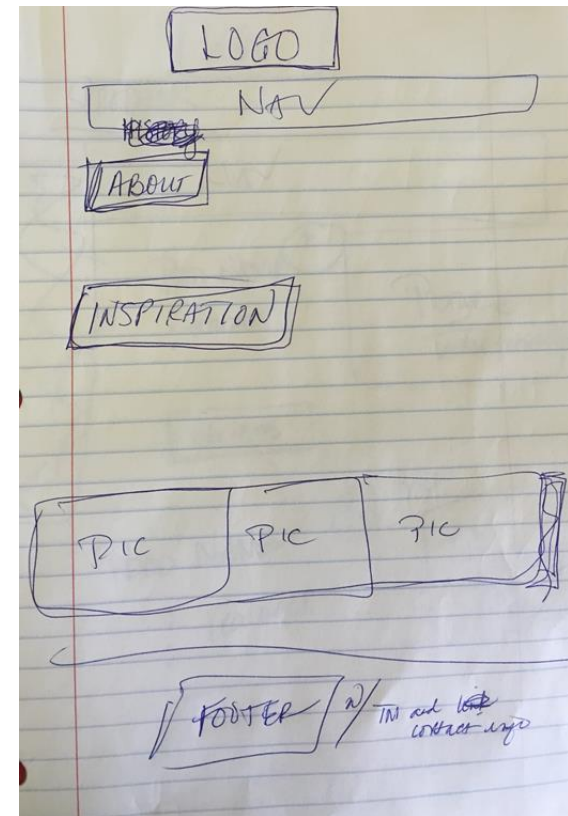
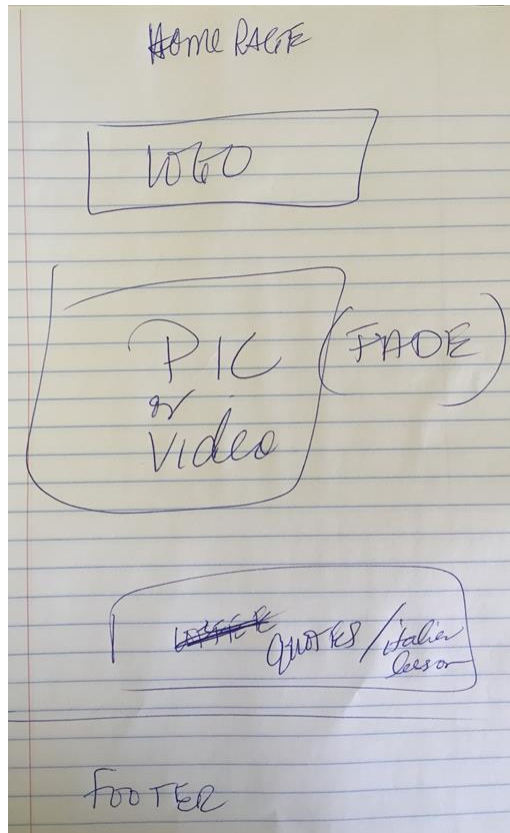
Twitter
Facebook
Instagram

Address
Phone Number
Email

Café Web Site Design & Logo



Story Boards



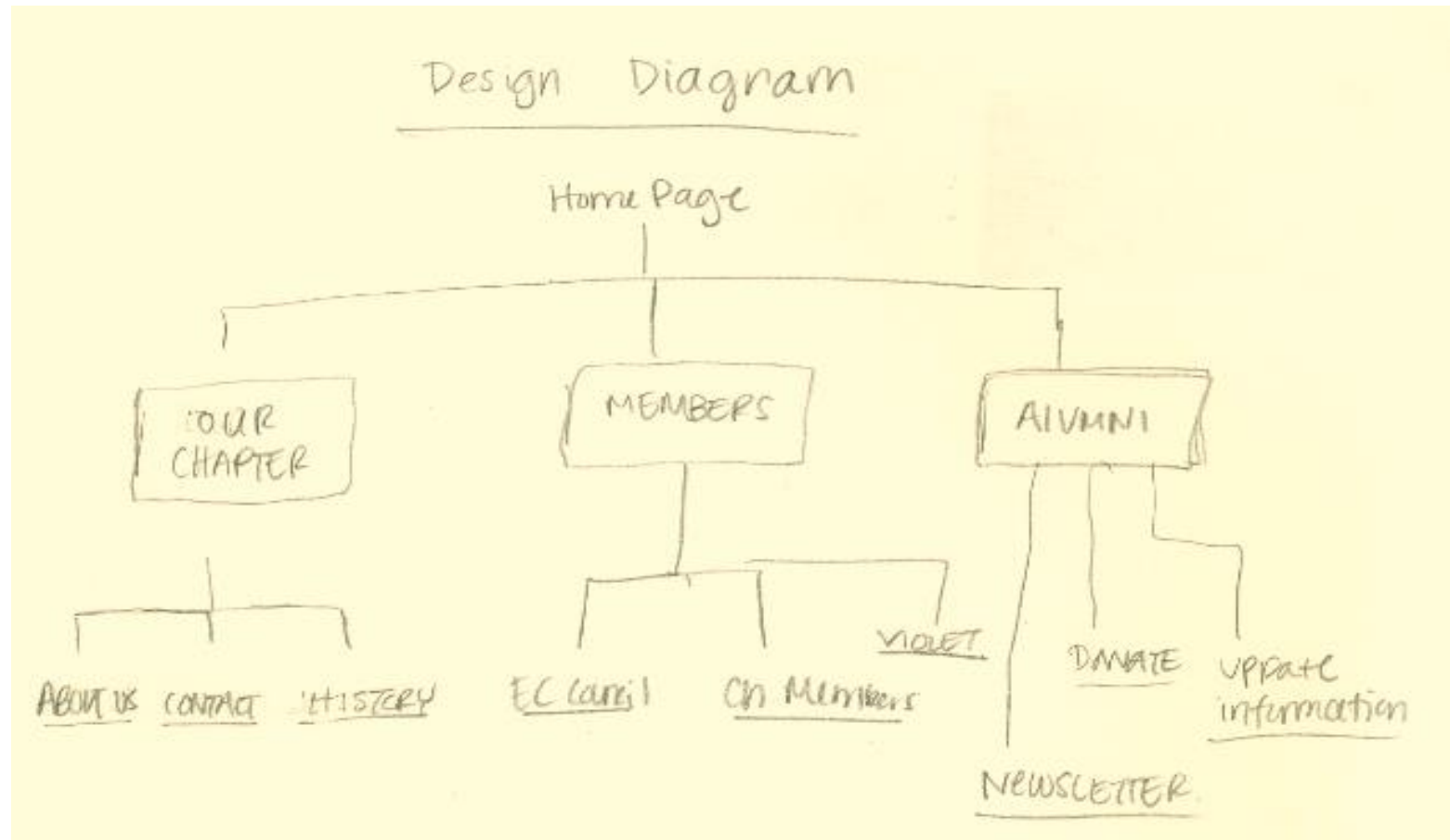
Planning/Design Questions

- How will you communicate your brand? Through pay-per click ad campaign and facebook page
- What content will make this site unique and attractive? Graphics, features, tutorial videos for each product, and clean crisp design features
- What will keep visitors coming back? Quality of the product and ease of use for the site and external product links
- What sort of interactive content does the site need? Videos, different rollover features for products
- Should the site include some form of entertainment to keep people interested? Yes, videos and tutorials
- Should we build a community through message boards, memberships, chat areas, and special interest areas? no
- What multimedia components might facilitate meeting our objectives? Videos, music, Italian tutorial for coffee related/life related phrases
- Should we include a mission statement and/or company profile? Sort of, will include an inspiration for the product which will be part story/part mission

Planning/Design Questions (con't)

- Should the site include a help section that allows users to provide feedback and contact the organization? Will include a form for questions to be submitted and contact info for the company
- Should the site include product picture and descriptions? yes
- Should the site include descriptions of services, fees, and related information? yes
- How can the site be categorized? Should it be categorized? No should have logical flow
- Will the site require the use of forms? yes
- Will the site need to be tied to a data source or database? For marketing and customer feedback requests...yes
- Should we include external links? To what sites? Yes, to Amazon and other external retailers.

Overall Design



Planning Questions

- How will you communicate your brand?
 - -By targeting Potential New Members and Alumni that want to see more about our chapter.
- What content will make this site unique and attractive?
 - - The fact that it was made from scratch and definitely the outstanding, and cool information.
- What will keep visitors coming back?
 - - The updated Newsletter that show even more things that the chapter is doing.
- What sort of interactive content does the site need?
 - -Chapter members to get more information on
- Should the site include some form of entertainment to keep people interested?
 - -No.
- Should we build a community through message boards, memberships, chat areas, and special interest areas?
 - - Yes, that way we can see who's been visiting the website in finding out which specific alumni and potential new members.
- What multimedia components might facilitate meeting our objectives?
 - -Interactive with the user visiting the website.

Planning Questions (con't)

- Should we include a mission statement and/or company profile?
 - - Definitely, we are a fraternity and we need to show others how we work.
- Should the site include a help section that allows users to provide feedback and contact the organization?
 - -Yes, which I included.
- Should the site include product pictures and descriptions?
 - -No products but members to brag about.
- Should the site include descriptions of services, fees, and related information?
 - -Yes, we're basically a business.
- How can the site be categorized? Should it be categorized?
 - -Yes, it will have many sections that will show you many things about SAE at CBU
- Will the site require the use of forms?
 - -Yes, it will have a form to update Alumni information to our data base
- Will the site need to be tied to a data source or database?
 - -Yes, to list and update information
- Should we include external links? To what sites?
 - -Yes, but I do not like using them that often.

LOGO



HOME PAGE

Logo

OUR CHAPTER

MEMBERS

ALUMNI

Chapter Picture

WELCOME
PAGE

find me on Twitter CBU SAE

LOGO

OUR CHAPTER

MEMBERS

ALUMNI

DONATE

DONATE :

SEND CHECKED:

CALL:

NEWS-
LETTER

UPDATE
INFO

NEWSLETTER:

LINK TO WORD DOCUMENT

UPDATE INFO:

NAME:

ADDRESS:

CITY: STATE:

NUMBER:

PLEASE CLASS/NAME:

BADGE NUMBER:

LOGO

OUR CHAPTER

MEMBERS

ALUMNI

Exec.
Board

Executive Board:

Pres

VP

TREASURER

Pic

Pic

Pic

Pic

Pic

info

info

info

info

info

Ch.
Members

Vicket

Chapter Members

Pic

Pic

Pic

Pic

Pic

info

info

info

info

info

Chapter Vicket

Pic

info!

LOGO

OUR CHAPTER

MEMBERS

ALUMNI

ABOUT
US

ABOUT US:

ABOUT US SECTION

Picture

CONTACT

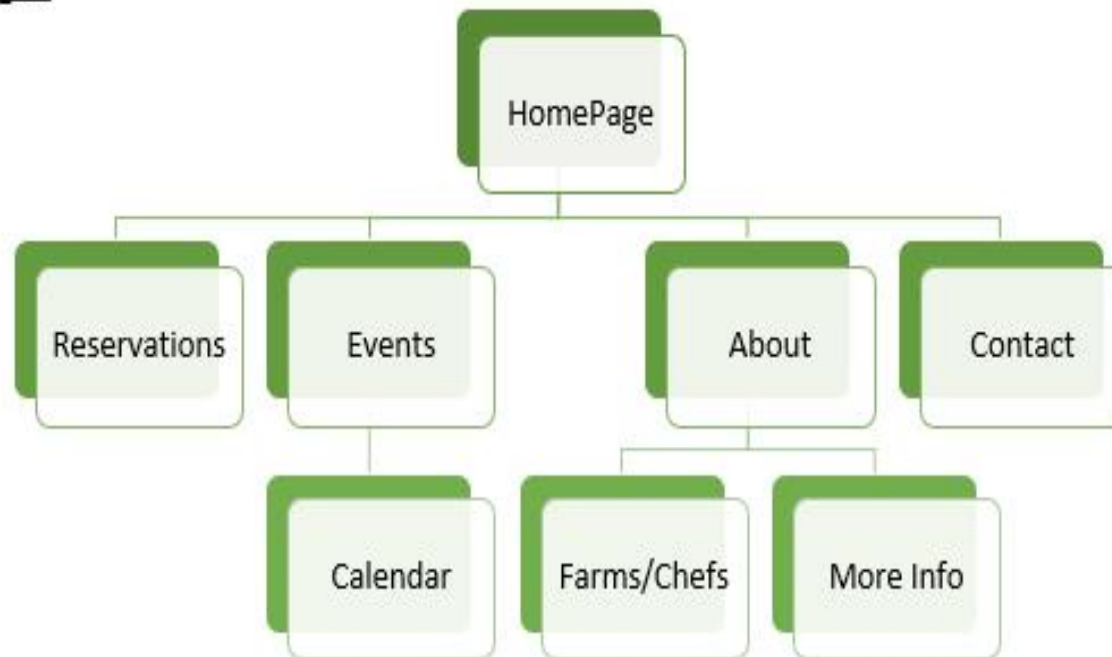
CONTACT:

Basic info.

History

SAB History

Website Design:



Logo:



Users: People interested in food and sustainability.

Priority: To attract more patrons.

Content: Pictures, text, events, forms.

1. How will you communicate your brand? By targeting foodies through our website and social media.
2. What content will make this site unique and attractive? Pictures, events, and information about sourcing/sustainability.
3. What will keep visitors coming back? Information about upcoming events.
4. What sort of interactive content does the site need? Forms to make a reservation and to contact us.
5. Should the site include some form of entertainment to keep people interested? No.
6. What multimedia components might facilitate meeting our objectives? Google Calendar and video about the farm to table movement.
7. Should we include a mission statement and/or company profile? Yes.
8. Should the site include a help section that allows users to provide feedback and contact the organization? Yes.
9. Should the site include product pictures and descriptions? No, our menu changes seasonally and we do not take online orders
10. Should the site include descriptions of services, fees, and related information? Yes.
11. Will the site require the use of forms? Yes, to gather info for Reservations and Contact forms.
12. Should we include external links? To what sites? Yes, to the websites of our partnering organizations.

[HOME](#) [RESERVATIONS](#) [REVIEWS](#) [ABOUT](#) [CONTACT](#)

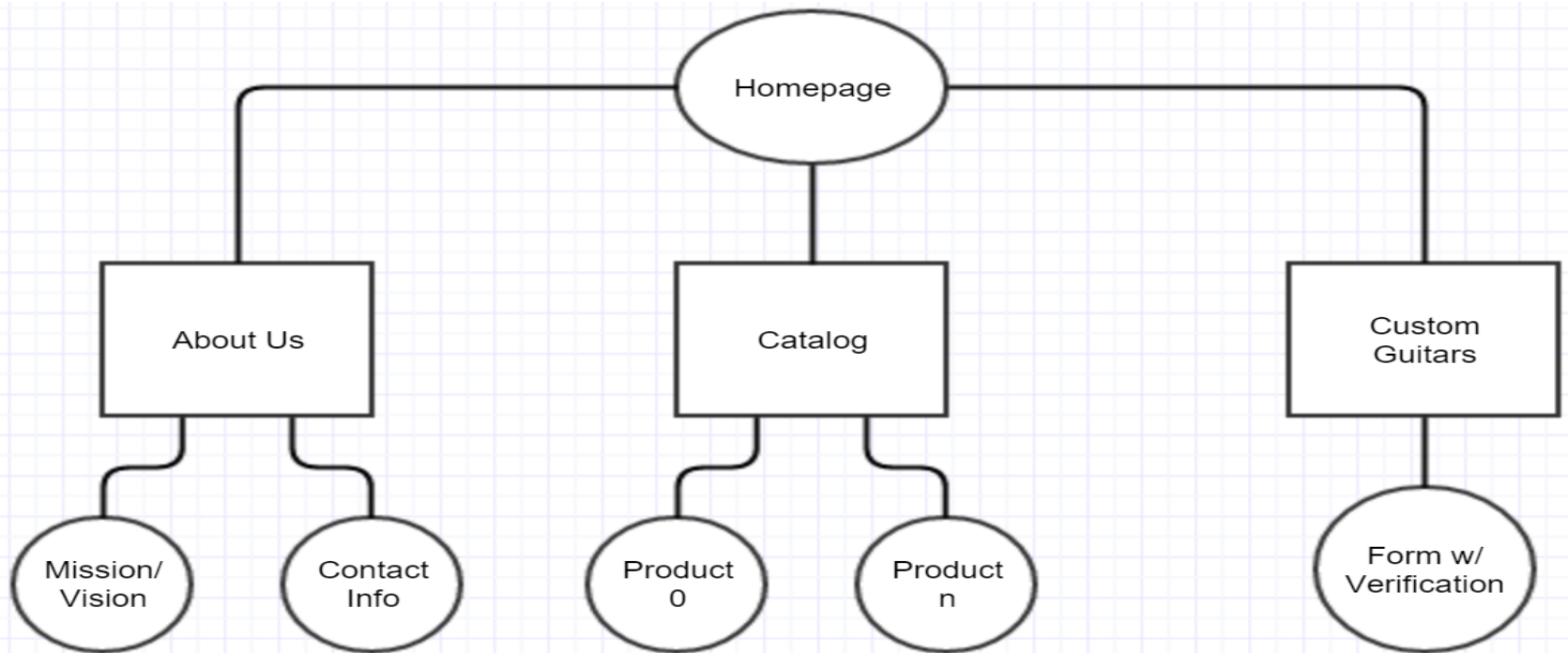


A Sustainable Fine Dining Experience

[RESERVATIONS](#)

Book a Table!

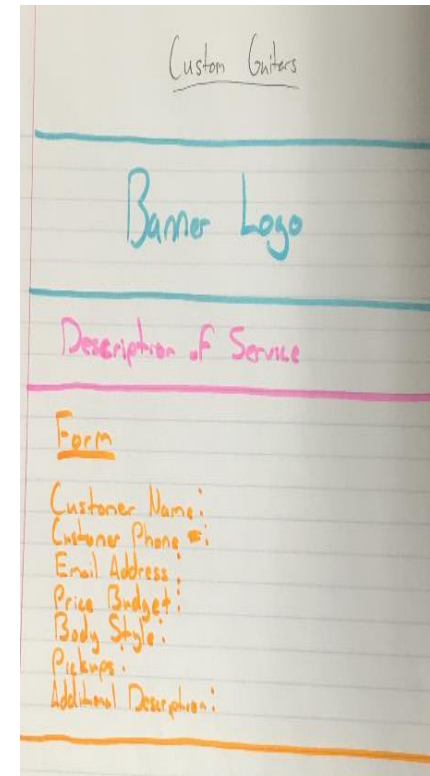
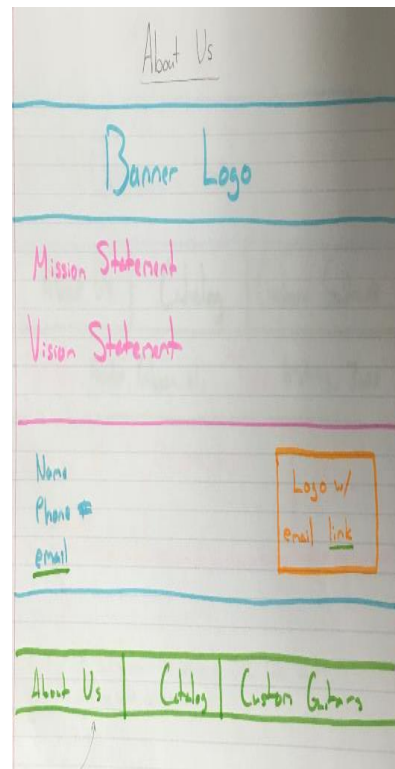
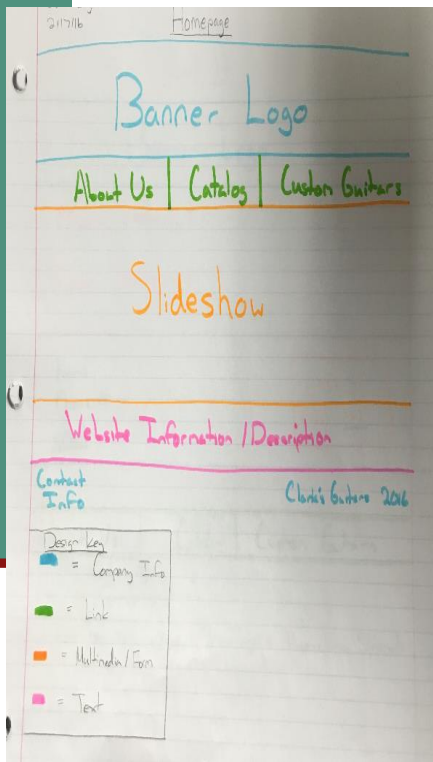
First and Last Name:		
Date (mm - dd/yyyy):	Time (mm - dd/yyyy):	
Submit Cancel		



Planning and Design Questions

- My brand will be communicated by appealing to those who desire to play music, while displaying their character through a one-of-a-kind instrument.
- Pictures of the company's wide-selection of guitars will make this site attractive. The goal is to contain these pictures within a slideshow on the homepage, and with individual photos on the 'Catalog' page.
- Visitors will be coming back as our inventory will be updated, along with news and updates displayed on the homepage.
- The site will have a fillable form for custom guitar orders, as well as an email link that directs one to their default email client, filling in the recipient as the company.
- The slideshow will serve as a form of entertainment.
- There will be no message boards, memberships, or chat areas. However, those who do business with us may sign up for our mailing list.
- An additional multimedia component that would serve us well is a company video. However, to keep load times at a minimum, the slideshow will be the only form of multimedia.
- The mission and vision statement will be contained within the 'About Us' page.
- Visitors of the site who wish to seek assistance may email us with the provided link. This will be stated on the page.
- The site will include pictures and descriptions regarding each guitar on our 'Catalog' page.
- Yes, the site will have descriptions of services, pricing, and related information.
- The 'Catalog' will be categorized by brands, and guitar type.
- A form will be used when requesting a custom guitar.
- The site will eventually be tied to a database.
- External links, except for the email link, will not be used.

Prototypes





Clark's Guitars



[About Us](#) | [Catalog](#) | [Custom Guitars](#)





Clark's Guitars



[About Us](#) | [Catalog](#) | [Custom Guitars](#)

Guitar Type: [Electric](#) | [Acoustic](#) | [Bass](#)

Image	Description	Price
	This American Deluxe Stratocaster HSS comes with a natural grain finish, N3 noiseless pickups, and S-1 switching to provide chiming highs, and mellow lows.	\$1450
		

<http://stu.cbu.edu/csawyers/homepage.html>



Clark's Guitars



[About Us](#) | [Catalog](#) | [Custom Guitars](#)

Ordering Your Custom Guitar

Fill out the form below to order a custom guitar from Clark's Guitars. Be sure to add information in the Comments area so we can tailor the guitar to your unique preference.

First Name

Last Name

Email

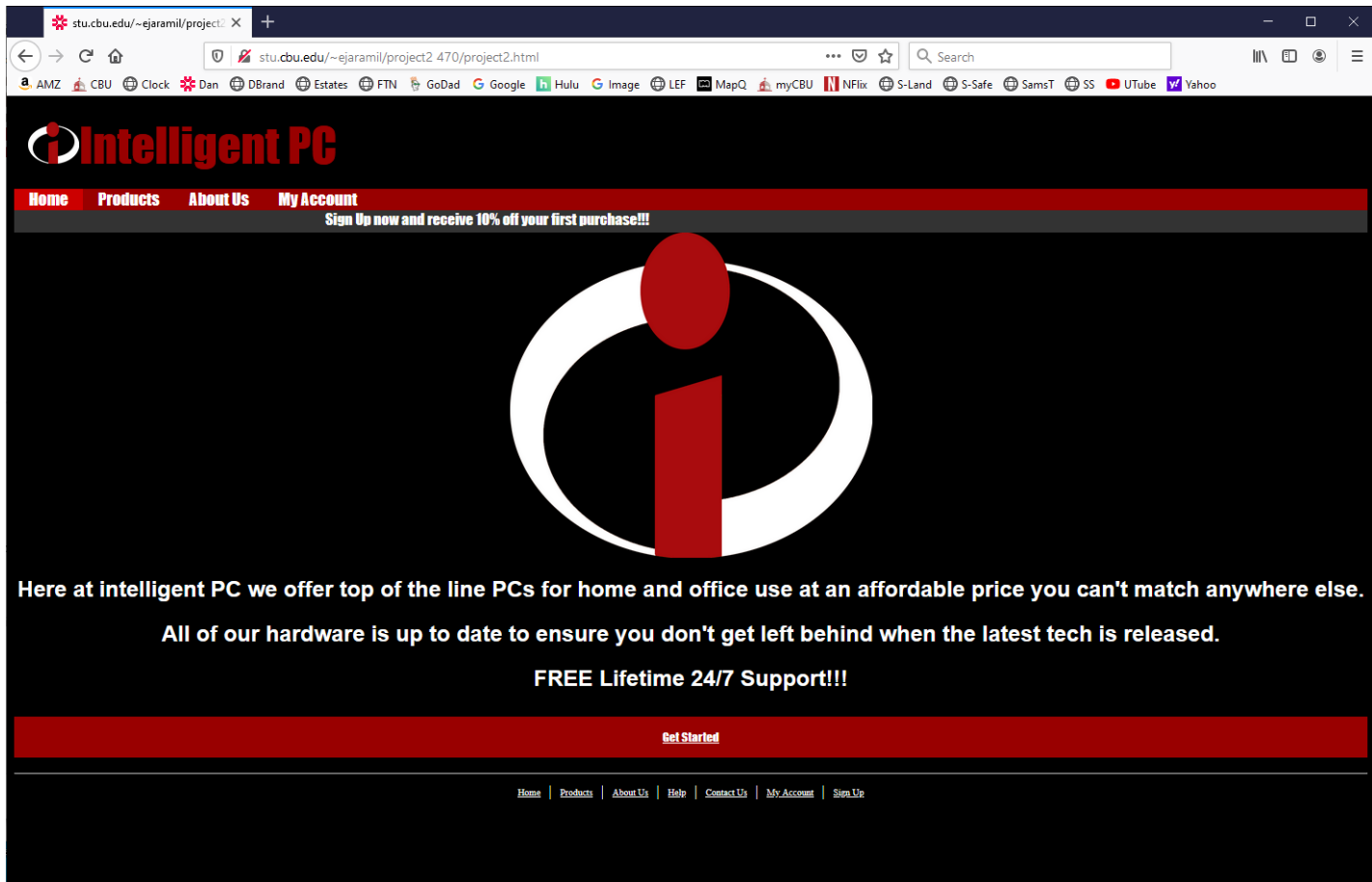
Phone

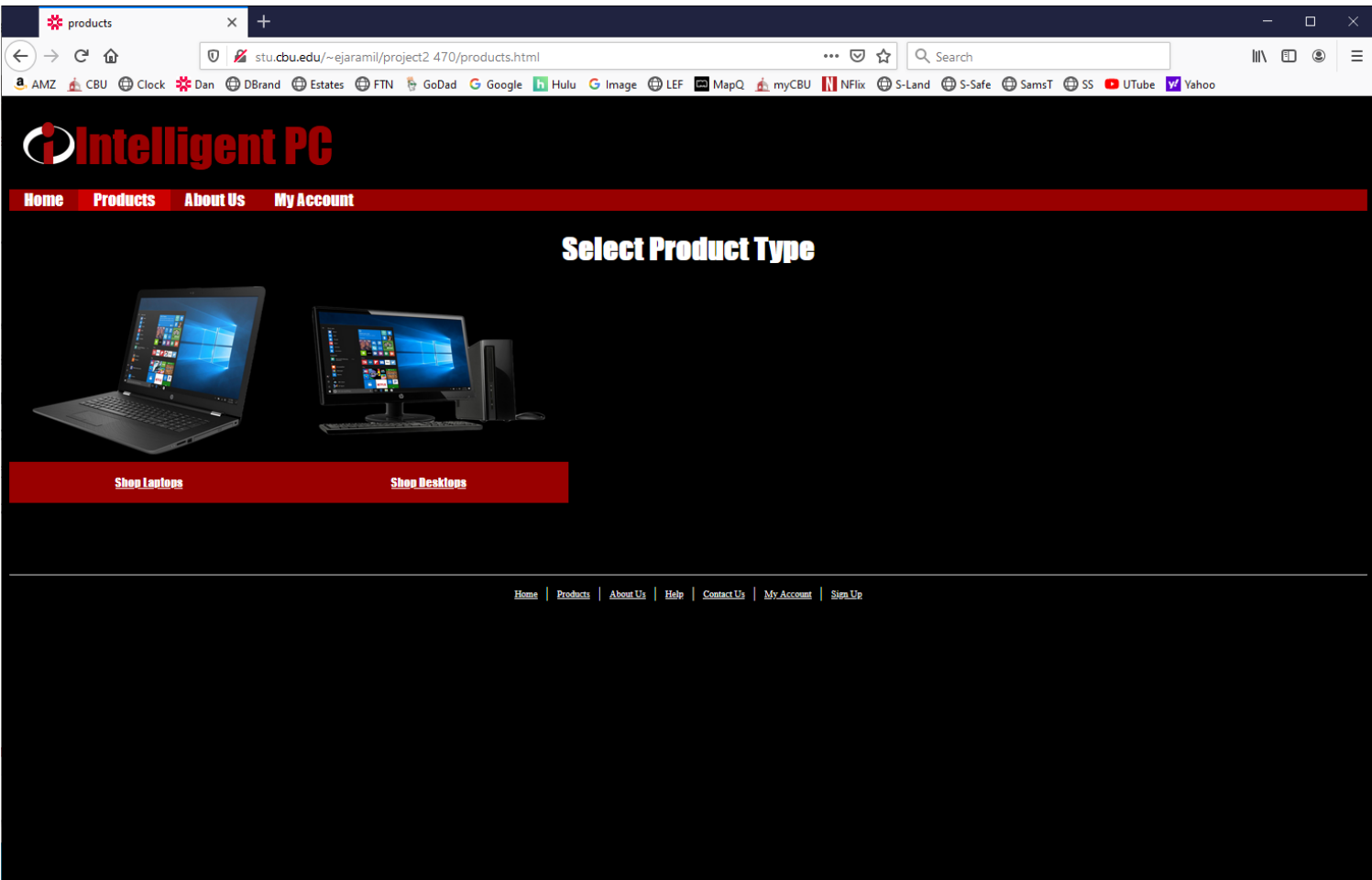
Address

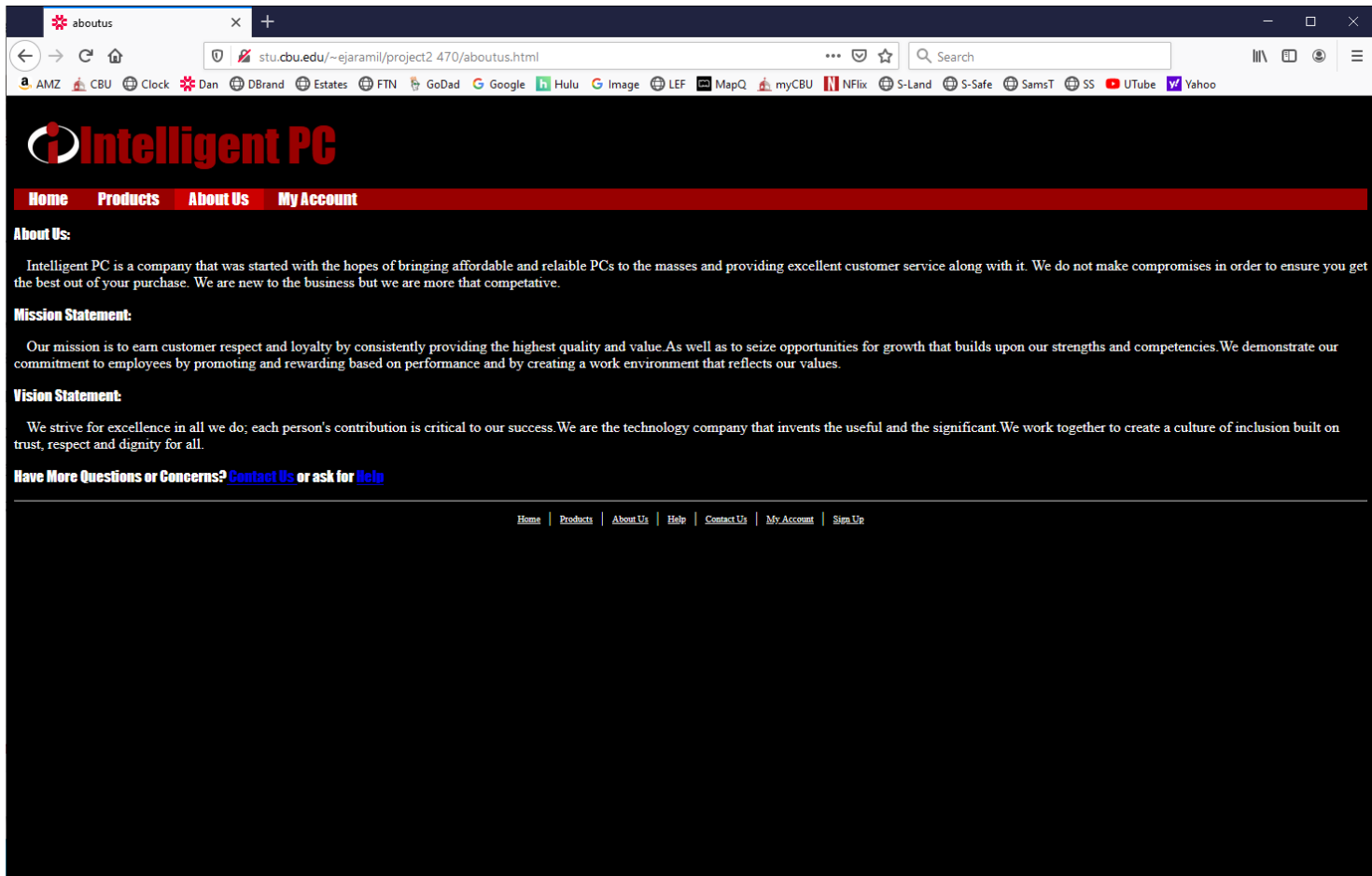
Country

Price Budget (\$)

Body Type







stu.cbu.edu/~ejaramil/project2 X

+

stu.cbu.edu/~ejaramil/project2 470/signup.html

Search

AMZ CBU Clock Dan DBrand Estates FTN GoDad Google Hulu Image LEF MapQ myCBU NFix S-Land S-Safe SamsT SS UTube Yahoo

Intelligent PC

Home Products About Us My Account

Sign-Up

First Name

Last Name

Address

E-Mail

Username

Password

☐ I would like to sign-up for the monthly newsletter.

Submit

Home

Products

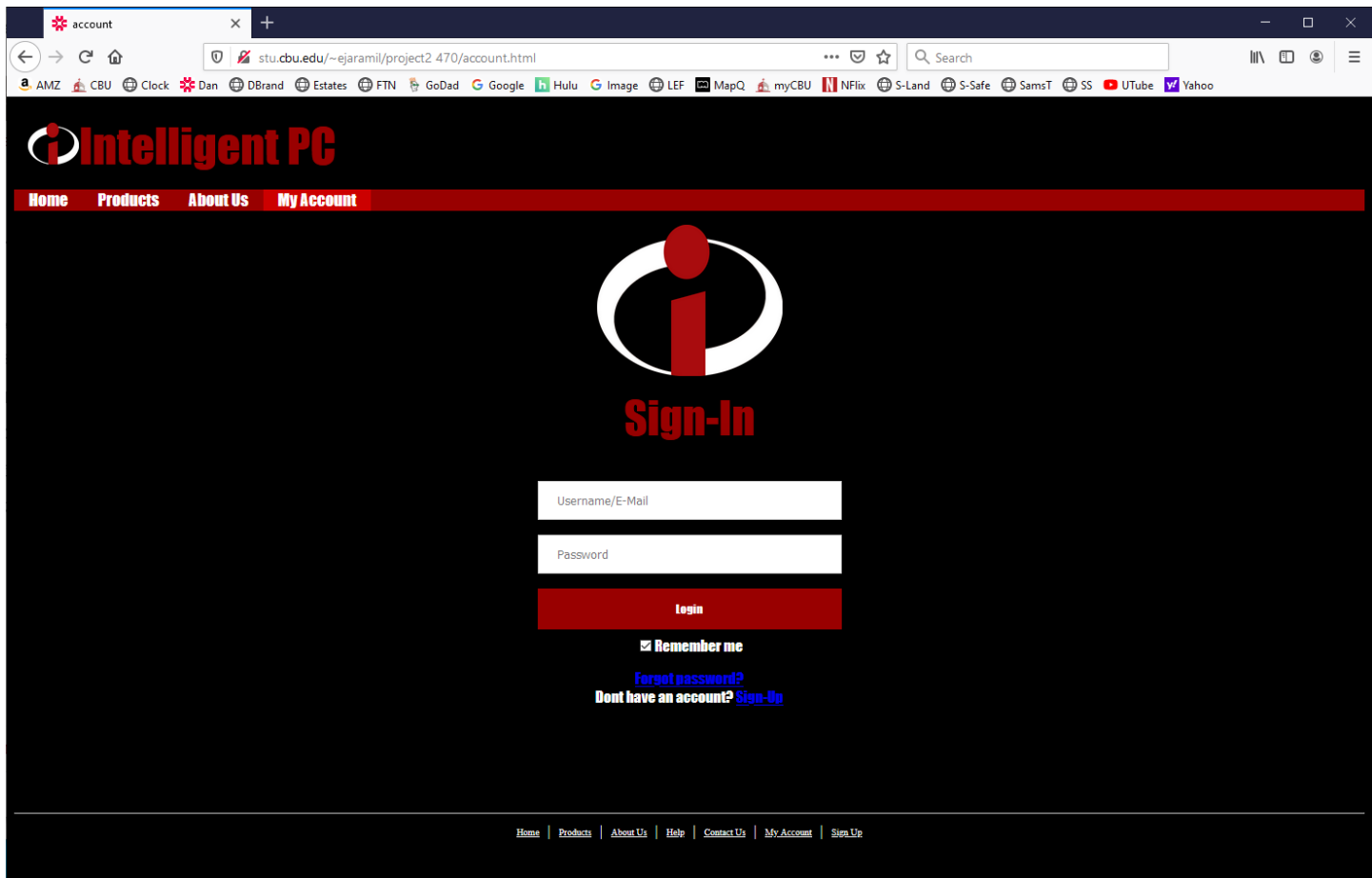
About Us

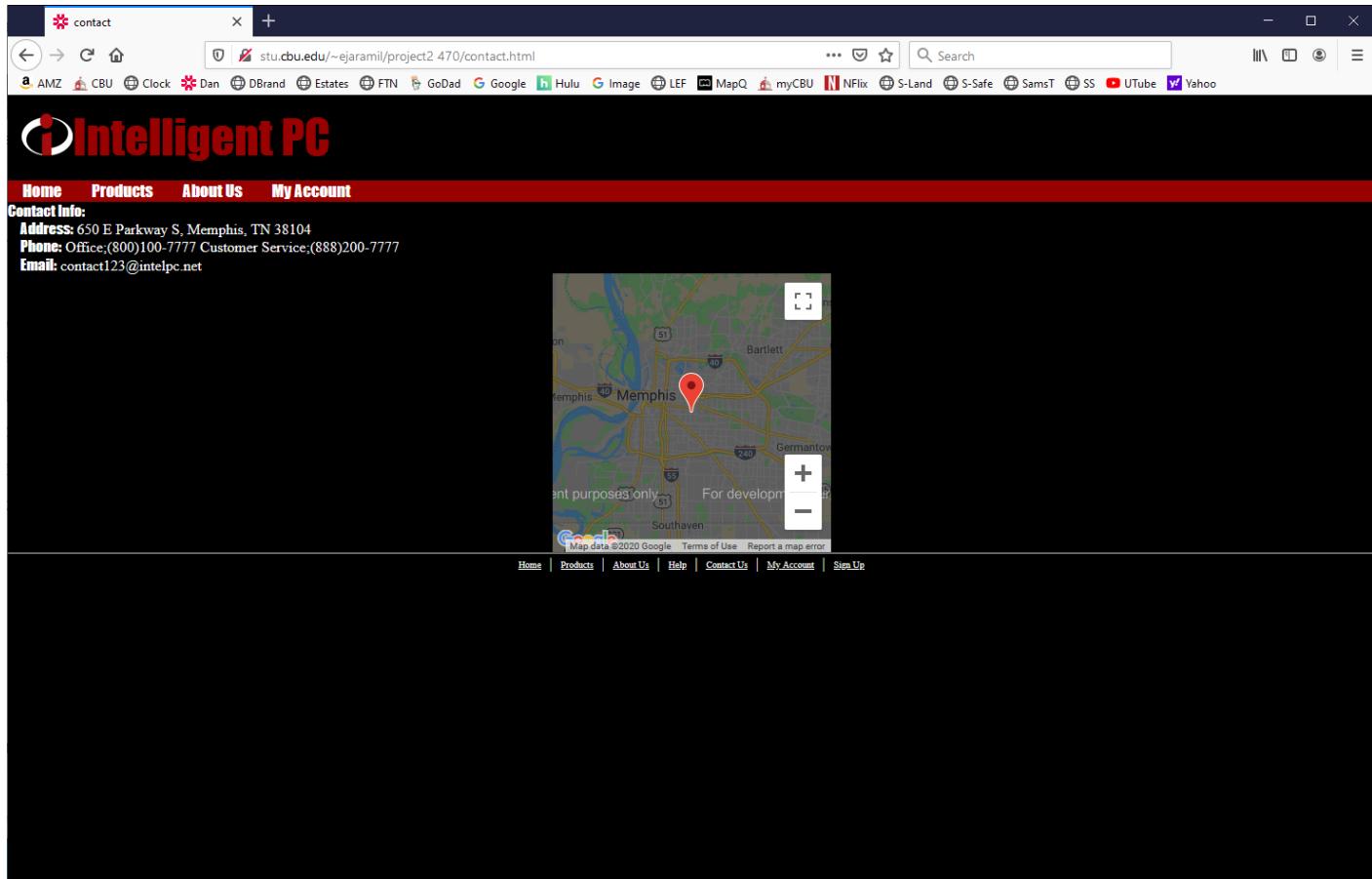
Help

Contact Us

My Account

Sign Up





Web Site Development Process



The Website Development Process



Our three characters: a programmer, a designer and a client.

A while ago I put [this](#) photo on my flickr page and it was chosen to go on the [official flickr blog](#) as the photo of that day (September 23rd). To date it has been viewed over 2000 times.

The photo was actually one in a whole series of photos I shot for a client presentation, detailing the website design / development process in a manner that was easily understandable and also fun to look at. This article takes you through that process, using the same photos. We hope you enjoy the pictures and if it also helps you to manage your workflow better if you are starting out as a web designer then that's cool too :)

However, as is the organic nature of these things, there are an infinite amount of variables that can affect the project timeline. For that reason, projects are never ever as clear-cut as in this sequence of photos. Things may need to be done over and over, steps may get jiggled around, you may need more time for CMS / back-end development etc - so please think of this sequence as merely a *basic* example of the kind of process that I have grown comfortable with, speaking as a web designer/developer.

Scope & Requirements



Step 1: Discussion

Naturally you're going to want to start your project with a client chit-chat. At the first meeting you need to establish the basic scope of the work - what needs to be done, roles and responsibilities, who is your point of contact for materials (text content, images) etc.

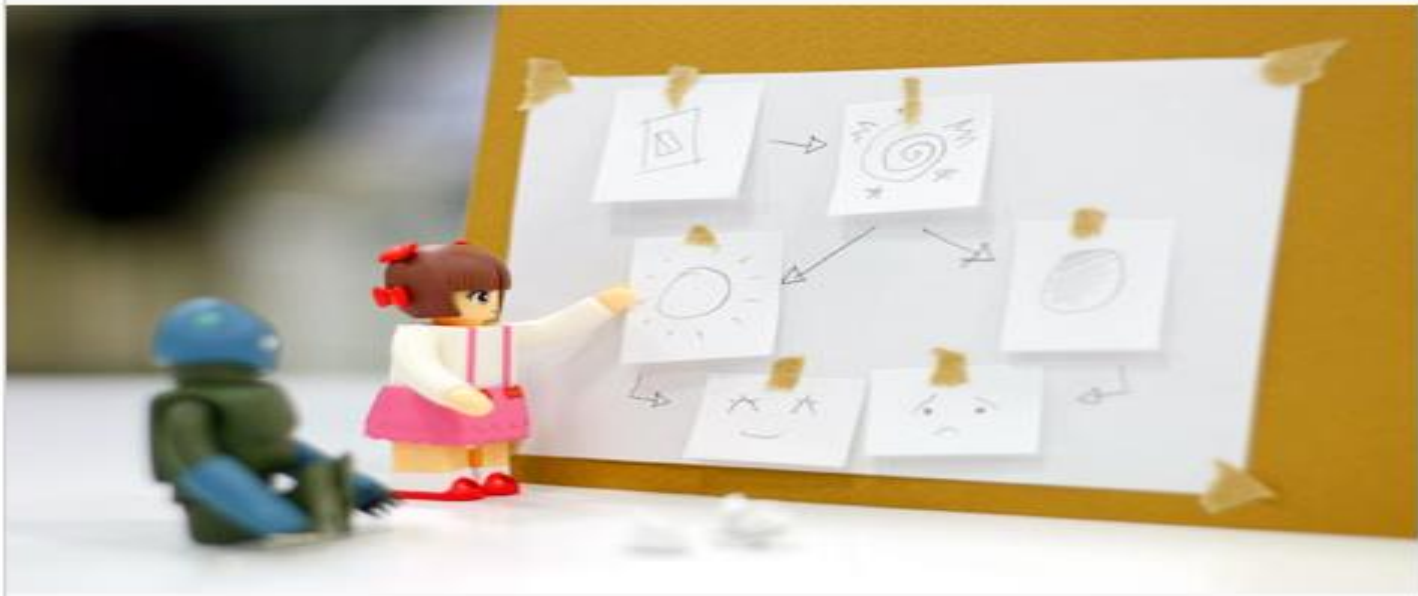
Analysis & Overall Design



Step 2: Brainstorming

Think about how you are going to structure things. What is important? What is not? What needs to be on every page? Depending on the scale of the project you might want to create a visual sitemap for your client. Preparing a sitemap is essential if you are reorganising content in any way.

Paper Prototype – “StoryBoard”



Step 3: Wireframe

A wireframe is a skeleton website, indicating all the navigation, function and content elements that will appear on the final website, but with *no graphic design elements*. It is used to iron out any problems or missing elements, and will act as the blueprint for the content, design and construction work that comes later.

How you create the wireframe is up to you - for small sites it might be fine to just line-draw it in Illustrator or Photoshop, but for larger, more complex sites, it might be necessary to actually code the wireframe into HTML so the client can click around to check everything is in the right place.

Content Planning & Organizing



Step 4: Planning the Content

Working from the sitemap and wireframe, you and the client get together to start planning the content - specifically the text. Content planning and writing is probably the biggest workload the client will have during the project - and it can *really* take some time.

Initial Design



Step 5: Initial Design

Whilst all this is going on, the designer can be working on the base design - the homepage and main sub-level pages.

Customer & Focus Group Review



Step 6: Client Feedback

When the base design is ready, the client needs to check that you are heading in the right direction and suggest adjustments to the design accordingly.

Re-Design



Step 7: Design Rework

... which will probably involve going back and tweaking things...

Customer Approval of Prototypes



Step 8: Client Approval

...until everyone is happy.

This process of **work-feedback-rework** is repeated at various stages in the project. Besides preparing the content, this confirmation process is also one of the main responsibilities of the client.

Detail Design



Step 9: Additional Page Design

Once the base design is agreed on, you can start working on the layout and design of each of the individual pages of the site.

Customer & Management Approval of Detail Design



Step 10: Confirmation

And once again they are checked, reworked and then finally confirmed.

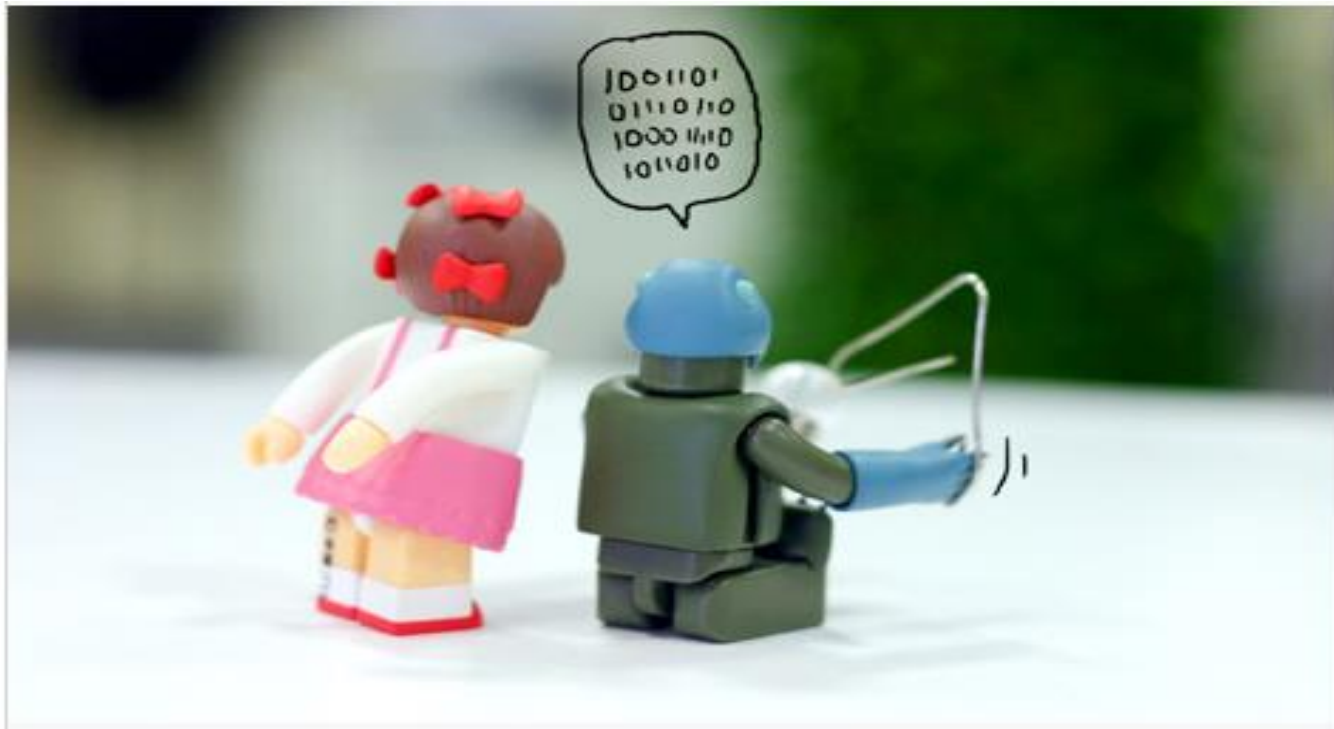
HTML Creation



Step 11: Build the HTML...

You can then begin to build the actual HTML pages...

CSS & JavaScript Completion



Step 12: ...and the CSS

...and the CSS (I guess I could have put that all in one step, but I really like the little robot guy).

Customer Review & Approval



Step 13: Present to Client

Feedback again. You and the client work together - **work-feedback-rework** - to polish and tweak things until you have a completed site.

Complete Testing



Step 14: Test

The final stage of production is the debug. The site needs to be tested across all platforms to iron out any technical problems, and checked thoroughly for content errors. Naturally, throughout the HTML & CSS development stage you should be checking cross-browser functionality anyway but you definitely need a *big* check at the end too - one that you actually set aside a decent amount of time for.

Deployments: Betas & Production



Step 15: Launch

The picture says "The End" - but of course you don't just grab the cheque and run for the door - you need to watch the site for at least around 10 days or so after launch in case of problems, and if necessary fix things.