

Midterm Review

October 17

Midterm Layout

- Some multiple choice, matching, true/false
 - Not much though
- Will mostly be short answer
- You will have to write/edit/sketch some HTML
- You will have to write/edit/sketch some CSS
- You will have a question regarding converting from one base to another

September 7

- ARPANET
 - What it was, headed by Advanced Research Projects Agency (ARPA)
- PCs, Gateways, Backbones
 - PCs are connected to a single gateway usually
 - Gateways are connected on high speed lines to backbones
 - Backbones are usually optical fiber and form the core of the Internet
- PCs, Routers, Servers
 - Three main types of computers on the Internet
 - Routers move packets along the shortest route, not all packets go the same way
 - Servers “serve” the internet, run special software, include: email, file, web, etc.
- Protocols
 - TCP/IP, HTTP, FTP, etc. How computers “talk” to each other and transfer information

September 7, cont.

- Parts of a URL
 - Scheme, server, path
 - <http://cmpt165.cs.sfu.ca/~sbrown1/assignment2/carshophome.html>
- MIME
 - Two parts: type and subtype
 - Usually provided by server based on file extension
 - image/jpeg, text/html, text/css
- Steps for how web pages are transmitted

September 9

- World Wide Web
 - Service that operates over the Internet
 - Made up of documents linked by hyperlinks
- Web crawlers and how they work
 - Understand how they find pages on the web
 - Policies: selection, re-visit, politeness, parallelization
- WSYIWYG vs. markup
 - Differences, benefits of each
- What is markup?
 - Uses special marks or annotations to describe how a document appears

September 9, cont

- Physical/Visual markup and Logical/Structural markup
 - Differences between physical and logical markup
- Why use markup
 - Separates content from how the document looks
 - Allows you to make changes to how the document looks much faster than with a WYSIWYG editor
 - Helps in understanding the structure of the document
- Basic html

September 12

- Attributes
 - `<tag attribute = "value">`
- Entities
 - `&entity;`
 - ` `; `<`; `>`
- Comments
 - Know what they are and the basic structure for inserting one into an html document
- Relative and Absolute Links
 - What each of them contains
 - When to use each
 - Benefits of using relative URLs
- Image specification
 - Know how to insert an image and the 4 required attributes:
 - `src`, `alt`, `width`, `height`
- Deprecated Tags and Attributes
 - You must know what the term deprecated means and how it applies to HTML

September 14

- Tables
 - Creating tables, <table>, <tr>, <th>, <td>
 - Border, width, cellspacing, cellpadding, colspan, rowspan
- Top-level tags, head tags, block level tags, inline tags
 - Know the difference between the types of tags
 - At least 2 examples of each of the tags
- DOCTYPE
 - Understand what doctype specifies, and why it is needed
- namespace attribute
 - Know what the namespace attribute is used for

September 16

- How we perceive color
 - Red, green and blue cones
 - Tristimulus theory
- Color models: RGB, CMYK, HSB
 - Additive, Subtractive know the difference and when each is used
 - Why not all color models are equal
- Color harmony schemes: monochromatic, complimentary, analogous, triadic
 - Be able to identify and give examples of these color schemes
- Web safe colors
 - How they are specified in Hex, their possible values: 00, 33, 66, 99, CC, FF for each component
- Hexadecimal numbers and how it relates to RGB color
 - How do we get Hexadecimal numbers from RGB
- Appropriate use of color
 - Example, bright colors, or highly saturated colors, draw a user's attention so they should be used sparingly

September 19

- 4 Design principles: Proximity, Alignment, Consistency, and Contrast
 - Be able to describe these principles, why you need them, and identify them in a web page
- Usability
 - Why is usability so important
 - People will use your site
 - Buy your stuff, etc.
 - Appeal to the broadest range of users, including those who use unconventional browsers
- User Expectations
 - Know some things users expect and why
 - Back button should always go back to the last page
 - Colors shouldn't change too frequently
 - Links should look like links

September 21

- Content Organization
 - Why is it needed for larger sites, especially businesses
- Organizational Schemes
 - Exact and ambiguous
- Exact Schemes
 - Content is put into mutually exclusive groups
 - Alphabetical, chronological, geographical
 - Best when you know exactly what you're looking for

September 21, cont

- Ambiguous Schemes
 - Can be more useful than exact schemes
 - Topical- organized by topic
 - Task-Oriented- organized by task (think file menu)
 - Audience Specific- different classes of users
 - Metaphor Driven- difficult to come up with a good metaphor, relate content to some known concept (like shopping at a store)
 - Hybrid- most common, not truly a scheme, blends the other 4 schemes, be able to give an example

September 21, cont.

- Organization Structures
 - Hierarchy, hyperlink, database
 - Hierarchy in pure form is not very efficient for most tasks, easily understood, breadth, depth, we prefer short broad trees
 - Hyperlink is more chaotic, very little real organization, links everywhere
 - Combine hyperlink and hierarchy to get an easily understood and quickly navigable site
 - Database, difficult to set up, requires special software, but very useful when users are searching vast amounts of information and only want to see a few pages

September 26

- Computer store information in bits
 - 0s and 1s
- Converting from one base to another
 - Even if you get the math wrong, you'll get some points for understanding the concept
- Maximum value for a number of bits how many numbers can be represented
 - For n bits, you have 2^n values, ranging from 0 to $2^n - 1$
- Large storage prefixes : Kilo, Mega, etc.
- ASCII and Unicode
 - What are they?
 - Why was Unicode introduced when we already had ASCII?
- Text editors and word processors
 - Know the differences between them, how they store information, benefits of each
- Fonts
 - Know how fonts are stored

September 28

- Computer Graphics
 - Using a computer to create or manipulate any kind of image
- Bitmapped
 - Store information as an array of pixels, the more you have the more detailed the image
 - Edited with paint programs
- Vector Images
 - Store image information in terms of shapes, locations and colors
 - Edited with drawing programs
 - Can include bitmapped images inside
 - Must be converted to bitmap to display

September 28, cont.

- How to pick a file format
 - Type, portability, color depth, compression, transparency
- Color or bit depth
 - Indicates how many colors you can have in an image
- Paletted or Indexed images
 - Selects colors via their index in the image's palette
 - Can select any colors
 - Ex.If we can have 216 colors in the palette, they do not have to be web-safe, can be any color we want.
- Dithering
 - Using pixels of two or more different colors closely together to get an in-between color
 - Saves on the number of colors we need for an image
- Compression
 - Lossy vs. lossless
- JPEG, GIF, PNG, BMP, and one Vector format
 - Note, jpeg is lossy! Mistake in sept. 28 lecture

October 3

- Purpose of CSS
 - Separate html content and structure from how it appears
 - Was created because browsers began adding tags to allow developers to specify the look of a page (browser was supposed to take care of that)
- Cascading
 - Understand how cascading works
 - Browser default, External, Internal, Inline
- Simple CSS rules
 - Know the format of a simple CSS rule
- Grouping
 - Grouping tags which use the same properties and values
- Using <link> tag, know the parts
 - <link rel = “stylesheet” href = “mysheet.css” type = “text/css”>
 - Why you need the type?
 - Not all servers supply the correct MIME type for stylesheets

October 5

- **Classes**
 - Let us specify different types of the same selector
 - p.comment {}
 - <p class= “comment”>....</p>
- **Identifiers**
 - Can only be used once per page
 - Identify a unique location on the page
 - p#intro{...}
 - <p id = “intro”> ...</p>
- **Ids as fragments or anchors**
- **Specifying background-color and font color for parts of a page**

October 5, cont

- Ids as fragments or anchors
 - Ids can be used to “jump” users to a specific location on the page
 - `introduction`
- Specifying background-color and font color for parts of a page
 - `background-color: #F00;`
 - `color: navy;`

October 7

- Generic Containers
 - Do nothing without attributes
 - Allow us to group tags or text
- `<div>`
 - Block-level tag
 - Can be nested
 - Often used with identifiers
- ``
 - Inline tag
 - Used to change part of a line, could be text, and image, etc.
 - Know how to use it to change text with classes

General Skills

- This review does not cover everything you need to know for the midterm
- It is intended to hit the highpoints of the course so far
- You should be familiar with the basics of html
 - How to setup a basic document (do not need to know the lines for doctype and namespace)
 - Basic things like line breaks, paragraphs, lists, etc.
 - How to apply some simple attributes like color, font-size
 - Know about nesting, closing tags, etc.
 - Headers

General Skills, cont.

- Be sure you understand the basic things with CSS
 - How cascading works
 - How to create a class and id and how to apply them
 - How to do some simple css
 - Like how to float a sidebar
 - Change background color
 - Change font color
 - Set a margin, border
 - Grouping
 - Headers

General Skills, cont

- Understand how tables work
 - What `<td>` and `<th>` are for and how they are different
 - How `rowspan`, and `colspan` work
 - How to create a table
- Be able to describe how web pages are retrieved
 - html and graphic from the same server
 - Graphic from a separate server

Questions?