Midterms

**HTML**

* What is HTML?
* Hypertext Markup Language
* Language used to create webpages
* What is HTML’s role in modern web development?
* To represent structure and content
* Who invented HTML?
* Tim Berners-Lee
* Who oversees the development of HTML?
* WWW
* What are the versions of HTML?
* HTML 1.0 (1989-1990)
* HTML 2.0 – RFC 1866 (1995)

-W3C was established

- HTML 3.0 – first W3C standard

- HTML 4.0 (1997)

- HTML 4.1 (1999)

* 3 versions
  + - Strict version
    - Transitional
    - Frameset
* HTML 5 (2014)
* HTML 5.1 (2016)
* Which documents specify the HTML standards?
* W3C
* What is the syntax of HTML?

**<!DOCTYPE html>**

**<html>** -encloses all the content

**<head>** -contains meta information

**<title></title>**

**</head>**

**<body>** -actual content

**</body>**

**</html>**

**HTML 5**

* Heading content
* h1, h2, h3, h4, h5, h6
* Grouping content
* p element
* Root elements
* head and body

**TAGS**

**<html>**

**<head>** : title, base , link, meta , style

**<body>**

article, aside, nav, section

header, footer html 5 tags

main - main content

address – contact information

div – generic divider

h1, h2, h3, h4, h5, h6

p – paragraphs

hr – horizontal line

pre – pre-formatted text

blockquote- quotations (larger blocks)

**lists**

ol, ul

li

**description lists**

dl

dt, dd

a

em, strong, small, s

cite

q – quotations (single lines)

dfn –define

abbr –abbreviation

ruby, rb, rt, rtc , rp

data, time

code, var, samp, kbd

sup, sub

span

bdi, bdo

br- break

wbr- word break

ins, del

**Cascading Style Sheets**

* specify presentation aspects of structurally marked up documents
* developed by Hakon Wium Lie (CHSS) and Bert Bos (SSP)

Versions:

* + CSS 1
  + CSS 2.1
  + CSS 3
* CSS Preprocessors , CSS Frameworks
* Sass, Less, 960, Grid System, Bootstraps, Foundation, Materialize, etc.
* Sass – Syntactically awesome style sheet

**HTML/XHTML Stylesheets**

* Author styles
* External stylesheets
* Embedded styles
* Inline styles
* User styles
* Preferences of the user (browser extensions)
* User agent styles
* Example default CSS 2.1 stylesheet for HTML 4

**CSS Statements**

* At-rules
* @charset – including other characters
* @import – including other content
* @media – media queries
* @font-face – include other fonts
* @keyframes – keyframe animations
* @page
* @document
* CSS Rule Sets (a.k.a CSS rules, style rules)
* Consists of a selector, followed by a brace-enclosed

**CSS Selectors**

* Selector
* Condition in a CSS-rule to determine which elements in the document tree are matched by the selector and are thus targeted by the formatting
* Matched elements
* Selector Syntax
* Chain of one or more sequences of simple selectors separated by combinators, with one pseudo-element possibly appended to the last sequence

**div#abc>p.xyz[title] + span**

* Sequence of simple selectors
  + Chain of simple selectors not separated by combinators
  + Always start with a type selector or a universal selector
  + Cannot contain other type selectors or universal selectors
* Group of selectors
  + Comma-separated list of selectors representing the union of all elements selected by each of the selectors in the list
* Simple Selectors
* Type selector
* Universal selector
* Attribute selector
* [attr]
* [attr = value]
* [attr ~ = value]
* [attr |= value]
* [attr ^= value]
* [attr $= value] CSS 3
* [attr \*= value]
* Class selector
* ID selector
* Pseudo-class
* Dynamic pseudo-class

-link pseudo class

* :link
* :visited

-hover pseudo class

* :hover
* :active
* :focus

-target pseudo class

* :target

-language pseudo class

* :lang()

-UI element pseudo classes

* :enabled
* :disabled
* :checked
* :indeterminate

-structural pseudo classes

* :root
* :first-child
* :last-child
* :only-child
* :Nth-child()
* :Nth-last-child
* :first-of-type
* :last-of-type
* :only-of-type
* :nth-of-type()
* :nth-last-of-type()
* :empty
  + Negation pseudo-classes
* :not()
* Combinators
  + Descendant combinator (whitespace)
  + Child-combinator (>)
  + Sibling combinator

-adjacent sibling combinators (+)

-general sibling combinator (~)

* Pseudo- elements
  + ::first-letter
  + ::first-line
  + ::before
  + ::after

**CSS Rule Precedence**

* By origin and importance
* !important

Order:

* user agent important declarations
* user important declarations
* author important declarations
* author normal declarations
* user normal declarations
* user agent normal declarations
* By Specificity
* inline style
* number of ID selectors
* number of class-selectors, attribute selectors, and pseudo-classes
* number of type selectors and pseudo- elements
* By Order
* Last one wins

**CSS Declarations**

* Properties
* Shorthand properties
* Vendor specific extensions
* Values
* Keywords
* Numbers

-integers, decimals etc.

* Dimensions

-length, angle, duration, frequency, resolution

* Length units

-font-relative : em, ex ,ch ,rem

-viewport-percentage: vw, vh , vmin, vmax

-absolute lengths: cm, mm, q, in, pt, pc, px

* Angle units: deg, grad, rad, turn
* Duration units: s, ms
* Frequency units: hz, khz
* Resolution units: dpi, dpcm, dppx
* Percentages
* URLs and URIs
* Colors
* Strings
* Functions: calc(), attr(), counter(), linear-gradient(), radial-gradient(),translate(), scale(), rotate(), etc.