

Web Design & User Experience Engineering – Lecture-2

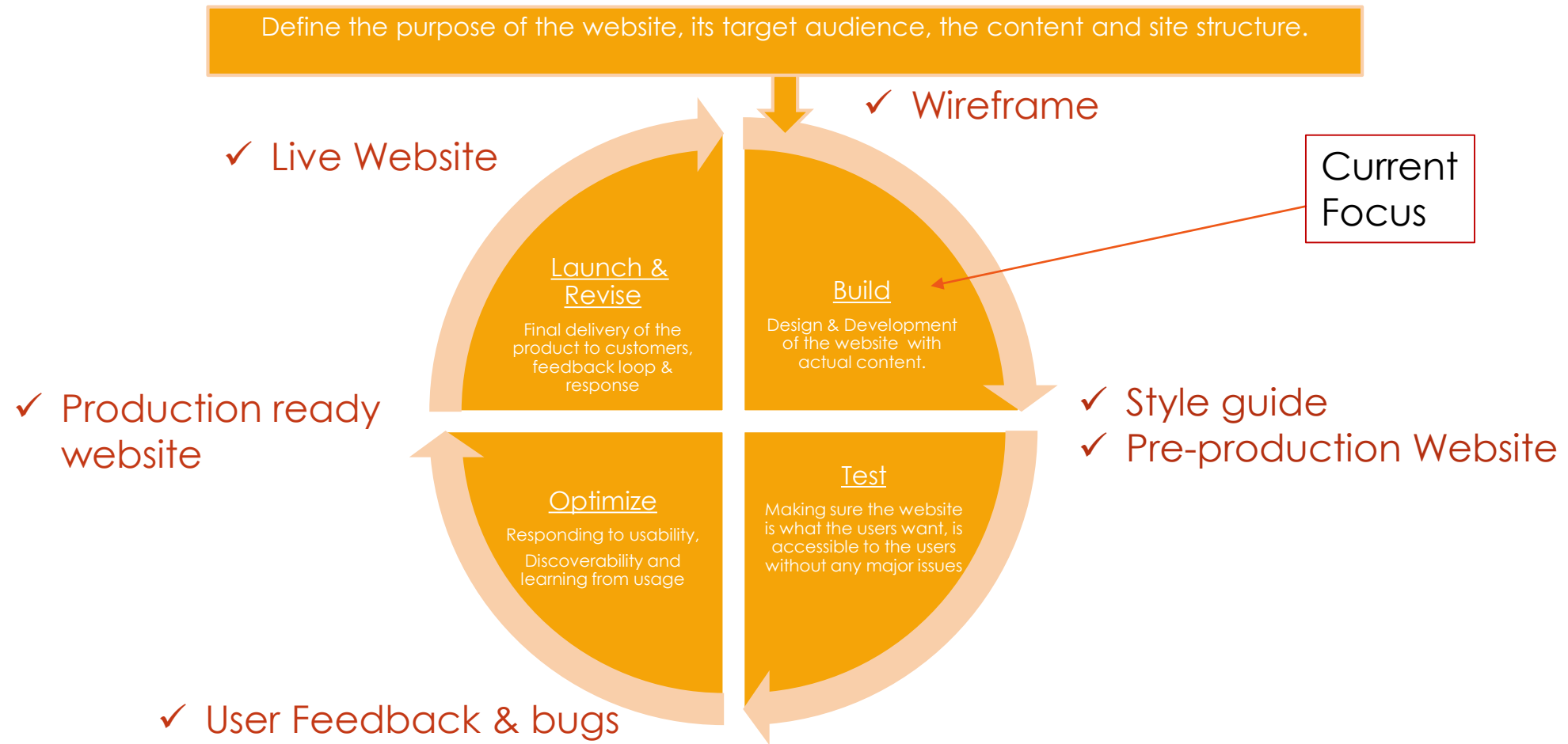
HTML5 Revision & all about CSS

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How do we do it?

Design Strategy & Planning



Class Schedule

- ▶ 1) Website Architecture, Design, Strategy and Planning and Creating web pages – Semantic HTML4/5
- ▶ 2) Design using CSS (covers CSS3)
- ▶ 3) Responsive web design & frameworks, CSS Preprocessors
- ▶ 4) Making the web page Interactive - JavaScript (Datatypes, Inline, Embedded and Advanced, Inclusion of JavaScript, variables, operators, loops, functions, error try/catch, JavaScript objects, constructors, properties and objects included in JavaScript)
- ▶ 5) Working with DOM Model and JavaScript Events
- ▶ 6) Using JQuery and other popular JavaScript libraries
- ▶ 7) Hosting on AWS, Assignment presentation with demo and Project work begins (learning project planning phase)
- ▶ 8) Reviewing wireframes and learning about design & style guide, development and content gathering
- ▶ 9) Review styled website with actual content, learn about interactive javascript
- ▶ 10) Review functional websites, learn about website Personalization techniques - Storing information, Advanced HTML5 Apis
- ▶ 11) Review personalization features and learn about performance
- ▶ 12) Review performance & learn about AngularJS (Understand Angular JS, Separation of Responsibilities, Integrating Angular JS with existing JavaScript and JQuery Applications, Global APIs)
- ▶ 13) SEO and Accessibility Techniques & Tools + Project work
- ▶ 14) Written exams, Final project submission & Demo

HTML Revision

- ▶ *HTML* stands for Hyper Text Markup Language. It is used to give websites structure

- ▶ HTML Document structure
- ▶ "brains" of a webpage because they communicate vital information to the web browser, but are not visible to a webpage visitor.

1. `<!DOCTYPE html>` : Tells the web browser to expect an HTML document.
2. `<html>...</html>` : The root of the HTML document and parent of all other HTML elements on the webpage.
3. `<head>...</head>` : Enclose other metadata about the site, such as its title.
4. `<title>...</title>` : Contains the site's title, which is one way users can find your site through a search engine, like Google.
5. `<meta charset="utf-8"/>` : Tells the web browser which character set to use. In this case, the character set is "utf-8".

HTML Revision

▶ Basic Page Structure

▶ Tags

- ▶ Headings,
- ▶ line break
- ▶ bold,
- ▶ strong,
- ▶ Italic
- ▶ Emphasis
- ▶ Displaying special characters -
http://www.w3schools.com/html/html_symbols.asp
- ▶ Whitespace -
- ▶ Images
- ▶ Tables
- ▶ List
- ▶ Form

▶ Mary Raymond



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EDUCATION:

Bachelor of Science in Sociology, Ohio State University, Columbus, OH - GPA: 3.85

EXPERIENCE:

RESEARCH INDUSTRY EXPERIENCE

Research Assistant
Taylor University, London, OH

- Prepared tables, graphs, fact sheets, and written reports summarizing research results.
- Prepared, manipulated, and managed extensive databases.
- Provided assistance in the design of surveys.

FINANCIAL INDUSTRY EXPERIENCE

Financial Assistant
Reinhold & Reinhold, LLP, Columbus, OH

- Entered new customer data into customer/accounting system.
- Corresponded with clients, the Internal Revenue Service, and the Ohio Department of Revenue.
- Faxed information as required.

AWARDS & RECOGNITIONS

1. American Association of Research Professionals
2. Outstanding Researcher of the Year 2009

HTML– New Key HTML5 Elements –

http://www.w3schools.com/html/html5_semantic_elements.asp

Tag	Description
<article>	Defines an article in the document
<aside>	Defines content aside from the page content
<figure>	Defines self-contained content, like illustrations, diagrams, photos, code listings, etc.
<figcaption>	Defines a caption for a <figure> element
<footer>	Defines a footer for the document or a section
<header>	Defines a header for the document or a section
<main>	Defines the main content of a document
<nav>	Defines navigation links in the document
<section>	Defines a section in the document

More info - <https://developer.mozilla.org/en-US/docs/Web/Guide/HTML/HTML5>

Tools to debug

- ▶ Inspect element – most of the browsers
- ▶ Chrome – chrome extensions
- ▶ IE – developer tools
- ▶ Additional plugins – like firebug, web developer

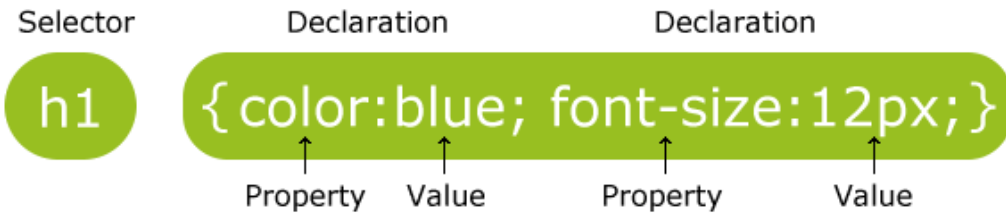
Write valid html

- ▶ Check your code for syntax errors
- ▶ Benefit:
 - ▶ Valid code à more consistent browser display
- ▶ W3C HTML Validation Tool
 - ▶ <http://validator.w3.org>
- ▶ CSS Validator: [http://jigsaw.w3.org/css-validator/#validate by input](http://jigsaw.w3.org/css-validator/#validate_by_input)

CSS - Cascading Style sheet

- ▶ A style sheet language developed to control the presentation of markup language documents like HTML i.e CSS describes **how HTML elements are to be displayed on screen, paper, or in other media**
- ▶ Style sheets are a collection of formatting rules
- ▶ Styles are applied together to pages in the order they are found, cascading down from external to local styles
- ▶ Is overwriting browser default styles
- ▶ Supports modularity (HTML, CSS, Javascript, server side, database) - http://www.w3schools.com/css/css_intro.asp

CSS Syntax



- ▶ The selector points to the HTML element you want to style.
- ▶ The declaration block contains one or more declarations separated by semicolons.
- ▶ Each declaration includes a CSS property name and a value, separated by a colon.
- ▶ A CSS declaration always ends with a semicolon, and declaration blocks are surrounded by curly braces.

Basic Selectors -

- ▶ Elements (p, h1, div, ...)
 - ▶ Class
 - ▶ ID
 - ▶ Grouping
-
- ▶ Examples: http://www.w3schools.com/css/css_syntax.asp

Integrating with html page

- ▶ External style sheet
 - ▶ can change the look of an entire website by changing just one file
 - ▶ `<link rel="stylesheet" type="text/css" href="mystyle.css">`
- ▶ Internal style sheet
 - ▶ used if one single page has a unique style
 - ▶ within the `<style>` element, inside the `<head>` section of an HTML page
 - ▶

```
<style>
body {
    background-color: linen;
}
</style>
```

Inline style
 - ▶ used to apply a unique style for a single element
 - ▶ add the style attribute to the relevant element
 - ▶ `<h1 style="color:blue;margin-left:30px;">`

Cascading order

- ▶ Order of priority-
 - ▶ Inline style (inside an HTML element)
 - ▶ External and internal style sheets (in the head section)
 - ▶ Browser default

Let's have some fun..

- ▶ Go through W3schools and play with all CSS properties
- ▶ http://www.w3schools.com/css/css_background.asp

To read actual specs-

- ▶ The World Wide Web Consortium (W3C) is an international community that develops open standards to ensure the long-term growth of the Web.
- ▶ Actual site: <http://www.w3.org/>
 - ▶ HTML5 - <http://www.w3.org/TR/html5/>
 - ▶ CSS3 - <http://www.w3.org/Style/CSS/specs.en.html>

Assignment 2

- ▶ Assignment 2:
 - ▶ · Using what you learned in the class please create a portfolio website shop and update your HTML to use HTML5 semantic tags including header, nav, section, footer, etc.
 - ▶ · Style your website using CSS properties making sure to use external style sheets
 - ▶ · Validate your html using - <https://validator.w3.org/>
 - ▶ · Validate your CSS using - http://jigsaw.w3.org/css-validator/#validate_by_input
 - ▶
 - ▶ You get inspiration for designs for a single application - <http://www.awwwards.com/websites/single-page/>
 - ▶
 - ▶ Stretch goal:
 - ▶ · Create 2 designs instead of just 1.
 - ▶
 - ▶