Introduction

Web Authoring and Design

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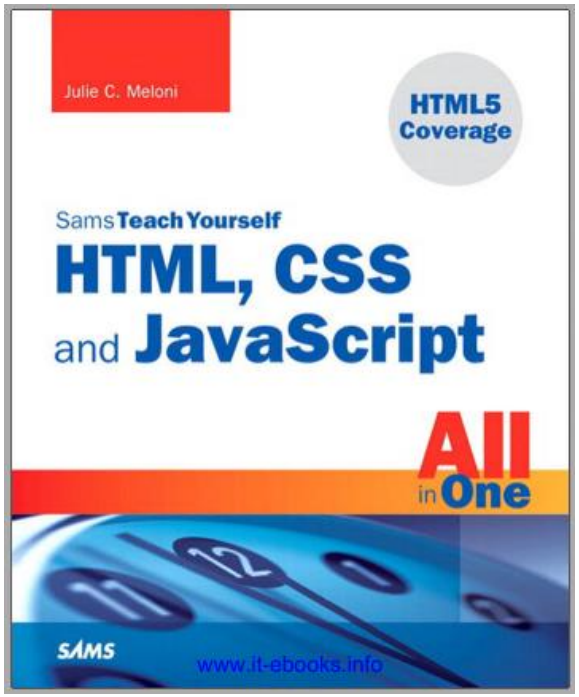
Outline

- What do we mean by Web Authoring and Design?
- What is HTML, CSS and Javascript
- Structure of the Course
- Assessment/Marking
- Review/Discussion

Recommended Reading

- SamsTeachYourself HTML, CSS and JavaScript All in One
  - ▷Ebook Available
  - ▷https://zjnu2017.github.io/WAD



- Chapter 1, 2 and 3
  - ▷Read This Week

Recommended

- Also read around the subject to gain a broad/comprehensive understanding of the topic
  - Articles, books, online-tutorials, …
- Huge number of examples/tutorials online to complement this course

Grading

- 1. Attendance: 5%
- 2. Quiz: 15%
- 3. Individual Project: 10%
- 4. Group Project: 20%
- 5. Final Exam: 50%

Structure

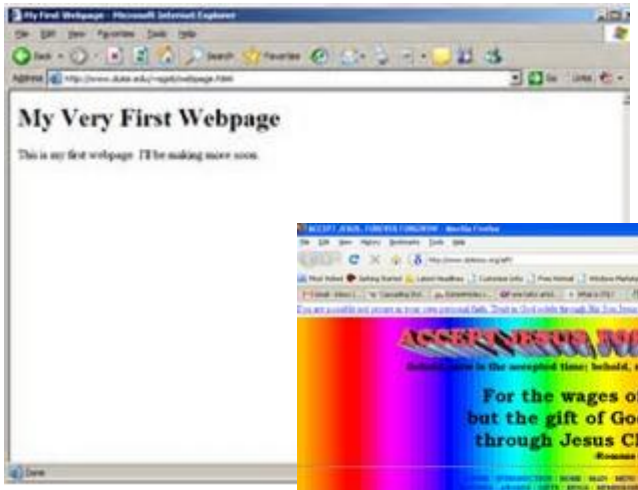
Week	Topic
1.	Introduction
2.	HTML Fundamentals (formatting text, images, media tags, ...)
3.	Hyperlinks, tables, forms, frameworks tags, ...
4.	Table based webpage layout
5.	CSS (create, edit, delete CSS styles and properties)
6.	CSS selectors (external CSS files)
7.	CSS+div layout
8.	Dynamic vs Static web sites (work patterns of dynamic web sites
9.	Introduction to Javascript
10.	Javascript, syntax, decision loops
11.	Javascript form processing
12.	Javascript event processing
13.	Javascript and Cookies
14.	Objects and DOM
15.	Connection to database
16.	Review for Final Exam

Submission Dates

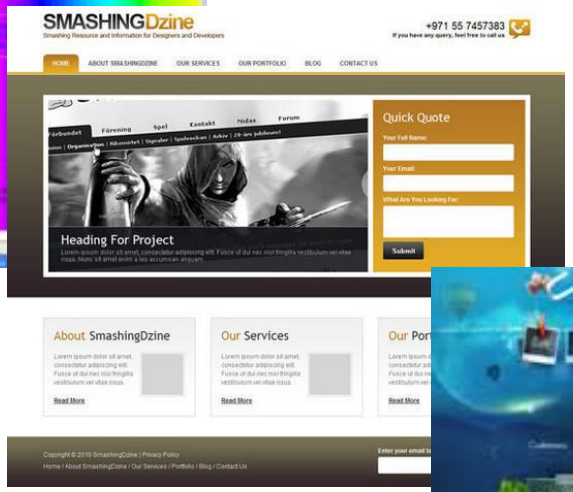
Week 4 - Quiz (5%)
Week 7 - Quiz (5%)
Week 15 - Quiz (5%)

Week 10 - Submit Individual Project (10%) - Q&A
Week 16 - Submit Group Project (20%) - Q&A

Expect


My Very First Webpage
This is my first webpage. I'll be making more soon.


For the wages of sin is death;
but the gift of God is eternal life
through Jesus Christ our Lord.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What is a Web Browser?

Chrome

Firefox

Internet Explorer

Opera

Safari

What is a Web Browser?

- A browser is a document viewer. What kind of document? Webpages


Chrome


Firefox


Internet Explorer


Opera


Safari

What is a Webpage?

What is a Webpage?

- Webpages are just text files with a .html extension
- Webpages are HTML documents, like other files on your computer (e.g., .doc, .jpg, ..)
- HTML is like MS Word but for the Web
- Webpages follow a predefined file format
- Learn this file format so you can create your own webpages

What does HTML look like?

- HTML code looks like this:

```
<p>Hellow World</p>
```

- The browser sees the and tags and understands that Hello World is a paragraph
- `Tag' based language

As any language, HTML has rules

- HTML stands for **H**yper**T**ext **M**arkup **L**anguage:

- **HyperText** means that it uses the HTTP part of the Internet
- **Markup** means the code you write is annotated with keywords
- **Language** means it can be read by both a human and a computer

- Like any language, HTML comes with a set of rules. These rules are relatively simple. It comes down to defining boundaries, to know where something starts and where something ends.

Brackets

- Here is a sample paragraph in HTML:

  ** Once upon a time… **

- What you see in angle brackets < and > are HTML tags. They define where something starts and where it ends
- p stands for paragraph

Start – End Tags

- Tags **usually** go in pairs:
- For example, with the paragraph:
  - the opening tag ** ** defines the start of the paragraph
  - the closing tag ** ** defines its end
- Only difference between an opening and closing tag is the slash **/** that precedes

First Webpage

- Create empty text file (e.g., .txt but you'll change the extension to .html)
- Type the following:

  ** This is my firstwebpage! **

- Save the file as 'hello.html'
- Open the file in your browser (e.g., Chrome or Explorer)

Tag Attributes

- Tags can have additional information
- For example, the href attribute is used to define the target of a link (which uses an anchor tag)

Cats

Comments

- Write text or information that is ignored by the browser (i.e., comments)
- A comment starts with **<!--** and ends with **-->**

```
<!-- This sentence ignored by the browser -->
<p>Hello World!</p>
```

Self-Enclosing Elements

 <!-- line-break -->

<img src=“./cat.jpg" alt="Description"> <!-- image -->

<input type="text"> <!-- text input -->

Errors
Order/Hierarchy

<!-- This is INVALID code! :-(-->

This HTML code won't work because I the "strong" tag is opened here
but is only closed after the paragraph.

Why?

- Because the was opened after the (and is thus considered a child of), the element must be closed before its parent

<!-- This is valid code. :-) -->

This HTML code will work because I the "strong" tag is opened and closed properly.

Important Note

- Whitespaces and newlines don’t matter
- i.e.,
  - line-breaks
  - empty lines
  - tabulations (or indentation)

A valid HTML document

- Previously looked at isolated snippets
- HTML document (or webpage, it means the same thing) requires a **specific structure** in order to be valid

Complete Valid HTML Document

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title>MarkSheet</title>
    <meta name="description" content="A simple HTML and CSS page">
  </head>
  <body>
    <p>Hello World!</p>
  </body>
</html>
```

Details

- <Doctype html>
  - tell the browser the HTML document is a HTML 5 document (version details)
- <html>
  - all your HTML document must be wrapped inside
- <head>
  - Attributes/information for the whole webpage (metadata not meant to be displayed anywhere)
- <body>
  - Everything inside the <body> will be displayed in the browser window

GitHub

- Websites for you and your projects.
- https://pages.github.com/

- Free and Public
- Track Changes
- Useful for `Group' Assessment
- **Research Setting Up GitHub Account this Week**

For Example

- Course notes/page for WAD are on a GitHub page:

- zjnu2017.github.io

Summary

- Overview of the Course/Plan
- Hands-On/Practical
- Assessment (Breakdown of Marks)
- Self Study (Can’t learn from just attending)
- Today is about `Getting Started’

This Week

- Review Slides
- Read Chapters 1, 2 and 3
- Create a Simple Webpage
  - E.g., notepad to create hello.html
  - Test it locally (e.g., local computer in Chrome or Explorer)
  - Experiment (e.g., different tags, typing mistakes, mobile browser, …)
  - Setup GitHub Account/Webpage
- **Start Early**

Contact

- Questions/Issues

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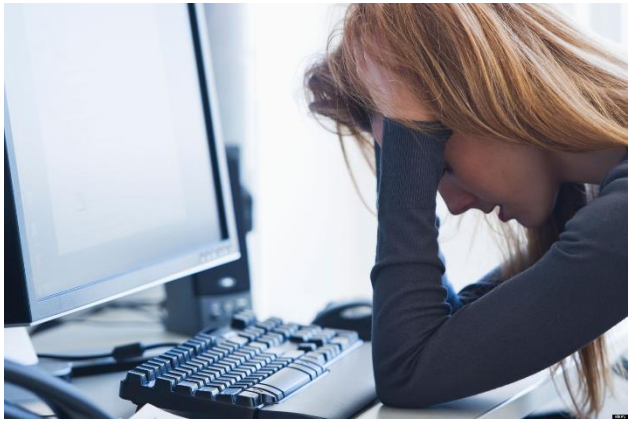
- Open Door Policy
  - Problems/Help
  - Within Reason



Question

- What does HTML stand for?

a) Hypertext Markup Language
b) Hyper Tag Mark Language
c) Hypertext Makeup Language
d) Hot Moodle Language
e) Non of the above

Answer

a) Hypertext Markup Language

Hypertext Markup Language (HTML), a standardized system for tagging text files to achieve font, color, graphic, and hyperlink effects on World Wide Web pages.

What the Web is all about

- The **Web** was created to share documents via Internet, and **HTML** is the language in which these documents are written
- While text has always been the primary medium, HTML evolved to incorporate other types of content like **images** and **videos**
- HTML content is **90% text**

Questions/Discussion

- Next Week
  - Attendance
  - Submit GitHub Page URL
  - Questions on Chapters 1-3
  - Scratched surface get you started
    - Interactive pages, animations, forms, …
    - Next week the real work starts
    - Creating `amazing' websites very soon

Experiment

- What are good sites to quickly experiment with JavaScript/CSS/HTML on a browser?

http://dabblet.com/