Csci 4131 Internet Programming

Fall 2018
Lecture 4, September 17th
Instructor: Dr. Dan Challou

Logistics

- HW2 out, Due Friday September 28th at 2pm (afternoon)
- Your grades from HW 1 have been posted to the class Moodle site
- If you have issues with your HW 1 grade, follow the policy listed in the class syllabus under "Issues with grades" on the class Moodle site
- Last Time:
  - HTML and a bit of CSS
- Today
  - Back to HTML (Forms, CSS)
- Reading:
  - Today, Back to Chapters 2 and 3 in Sebesta
  - HTML and CSS tutorials available at:
    http://www.w3schools.com/

Today

- More HTML and Some CSS
  - HW 2 Review
  - Forms
  - HTML Inline and Block Elements
  - More CSS

Target for Next Time

- CSS Wrap-up (Box Model), other stuff

- Start JavaScript (Chapter 4)

- JavaScript Tutorial Available at:
  - https://www.w3schools.com/js/

HTML Forms

- HTML5 provides **forms** for collecting information from users

- HTML forms enable you to do some syntactic validation on the client side before sending the information collected from the user to the server side (See Chapter 2, Sebesta, and http://www.w3schools.com/ on this

- A form typically has a collection of input fields that can be submitted for further processing

Form Input Types (note, type is an HTML attribute of the input element)

- Several Input Types Available :

  - Text input (textarea is an HTML tag (element))
  - Submit input
  - Password input
  - Checkbox input
  - Radio Button input
  - Select Element input
  - Text Area input (element not a attribute of input)

New HTML5 Form input types – Introduced with HTML 5

- input Type color
- input Type date
- input Type datetime
- input Type datetime-local
- input Type email
- input Type month
- input Type number
- input Type range
- input Type search
- input Type tel
- input Type time
- input Type url
- input Type week

Notes

- These types are not universally supported by all browsers
- HTML 5 `input` types are ***somewhat*** *self validating* on the client side.
- Benefits
  - eliminate the need to add (some) JavaScript code to your web pages to validate user input,
  - reduces the amount of invalid data submitted and thus reduces Internet traffic between the server and the client to correct invalid input.
- *The server should still validate most all user input.*
- When a user enters data into a form then submits the form the browser immediately checks the self-validating elements to ensure that the data is correct

HTML Self Validating Input Types

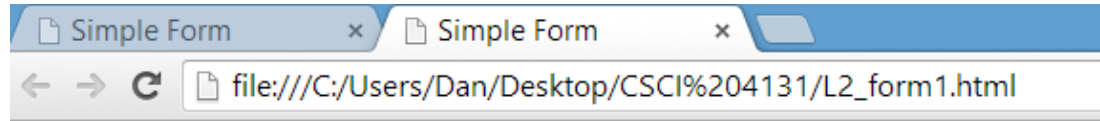| input type	Format
color	Hexadecimal code
date	yyyy-mm-dd
datetime	yyyy-mm-dd
datetime-local	yyyy-mm-ddThh:mm
month	yyyy-mm
number	Any numerical value
email	name@domain.com
url	http://www.domain-name.com
time	hh:mm
week	yyyy-Wnn

Fig. 3.5 | Self-validating input types.

Example – a simple Form

- Build a Simple Form

  - L2_form1.html

Exercise 1 – Work Alone, clean sheet of paper, open book, notes, computer

Add an email input type, and a URL input type to the Simple Form

L2_exercise 1

Here are the constructs

<label> Email

       <input type = "email"

          placeholder = "name@domain.com" required />

          (name@domain.com)

</label>

<label> My Favorite URL

       <input type = "url"

          placeholder = "http://www.domainname.com" required />

          (http://www.domainname.com)

</label>

Do the exercise on a piece of paper and LEGIBLY write your name, and x.500 id on the top, and hand it in at the end of class

Let's take a Look

- Dan's Attempt

L2_exercise1.html

Hidden Fields

- L2_form1a.html

A Review of Some Other Useful HTML5 Tags – block and inline elements

- Div, Span, and Navigation tags
- Nav Useful for creating a multi-page Website
- Can alternately use div if no browser support
- Span is an inline element – useful for inline styling!
- See - http://www.w3schools.com/html/html_blocks.asp

The **div** element

- The div element works a little differently than most
- When used alone, it doesn't do anything
- div creates a group to contain a set of elements

div and span

- **div** elements are called block elements
- That means your browser will automatically insert a newline before and after a div
- In many cases that's fine, but sometimes you may want to group elements in an inline fashion
- That what **span** is for

Span Example

- Suppose we want to do some special styling to names

<div class="nav_bar">

Here is a span example.
    <p>
        It is really lame and long, and really has alot of extraneous words, but I had to do something to show you.

         Hi, I am Dan.
    <p>

</div>

CSSspanex.html

Recall, Methods for Adding Style (CSS) to HTML 5 documents

- Inline – applied via the HTML style attribute to a particular element (we just saw this)
- Embedded – use HTML style tag:

  <style> </style>in the head portion of the HTML document. Define styles for particular elements, and classes that can be applied to elements in between the style start and end tag

- Separate File that is included in HTML (separates structure and content from presentation)

  Use the HTML <link> tag to include a style file

We'll see all three some more in the examples that follow

Embedded CSS using HTML Style Tag

```
<!DOCTYPE html>
<html>
        <head>
                <meta charset="utf8">
                 <style>
                        h1 {color:red;}
                        p{color:blue;}
                </style>
        </head>
        <body>

                <h1>A heading</h1>
                <p>A paragraph.</p>
        </body>
</html>
```

firstEcss.html

Source: http://www.w3schools.com/tags/tag_style.asp

Including the CSS properties from an External StyleSheet

```
<head>

<link rel="stylesheet" type="text/css" href="
        style.css" />

</head>
```

Exercise 2 – Think/Pair/Share

- Build an external CSS file called mystyle that:

  - Centers all the text in paragraph elements, and sets the font color to red
  - Centers all the text in div elements, and sets the background color to yellow

  And use it in a Webpage:

  - You will need the following CSS attributes, and HTML tag:
    color:------;
    text-align:center;
    <link rel="stylesheet" type="text/css" href="mystyle.css" />

Classes in CSS

- There may be cases where we wish to style a group of HTML elements, but not all of them

- We can use a **class** to effect this

.maroon_row { background-color: maroon; }

.gold_row { background-color: gold; }

Now Let's Use it

```
<table>
      <tr class="maroon_row">
            <td> I'm maroon! </td>
      </tr>
       <tr class="gold_row">
            <td> I'm gold! </td>
      </tr>
</table>
```

CSS_Class_ex.html

Floating Nav and Div

- What if we want a navigation bar on the left, and a notification box on the right?

- Floating attributes allow us to position elements in ways other than the standard top-down approach

.left { float: left; }

.right { float: right; }

Example

CSSfloatingNav_ex.html

Remember HW and Reading

- HW2 Due Friday Sept 21st at 2pm – Extensions to your three page web site

- Reading:
  - Next Class Sebesta Chapters 3,4
    - Finish CSS (Review Box Model), Start JavaScript
  - HTML, CSS, JavaScript tutorials available at:

    http://www.w3schools.com/