SOEN 287 WEB PROGRAMMING

http://www.switched.com/2010/05/11/what-is-html5-and-why-should-you-care/

Topics

❖Part1:
- Evolution of HTML
- HTML syntax & tags
- Character Entities
- Meta data
- Images
- Links
- Lists
- Tables

❖Part2:
- Forms – a first look
- `<audio>` element
- `<video>` element

Forms

- Allow user interaction

- Will start by looking at how to create a form.

- To make them do something we need a programming language like JavaScript and PHP

- `<form></form>` is used to transmit information to the server

Forms …

`form` tag is a container for form elements

- o Text boxes
- o Password boxes
- o Text areas
- o Select lists
- o Check boxes
- o Radio buttons
- o Buttons
- o Labels

Select an age range.

- ○ 0-15
- ○ 16-30
- ● 31-45
- ○ 46-60
- ○ 61+

Enter

Field 1 :

Field 2 :

option 2

option 1

option 2

Name is required.

UserName :

Submit   Reset

Single Selection Mode   Multiple Selection Mode

- ○ Mercury   ☐ Mercury
- ○ Venus   ☑ Venus
- ● Earth   ☐ Earth
- ○ Mars   ☑ Mars
- ○ Jupiter   ☐ Jupiter
- ○ Saturn   ☑ Saturn
- ○ Uranus   ☐ Uranus
- ○ Neptune   ☐ Neptune

Components of a form

- `<form> </form>` tags define the form as a part of the page

  - How to use:

    ```
    <form action = "">
    </form>
    ```

  `action` attribute indicates what should happen when the form is submitted

- `<label>` to set a chunk of text as a label

- `<input></input>` tags to collect data

Form 1: Coffee1.html

Welcome to Bahareh's Coffee Shop

Buyer's Name:

Address:

Password (6 to 20 characters)

Syntax for the different input Widgets (or controls)

- **text field/box** with a **label**


```
<label>User Name</label>

<input type ="text" name="usrNm" />    or
<input type ="text" name ="usrNm" value="Enter
 your name"/>
```

Syntax for the different input Widgets (or controls)

- **password field** with a **label**

To reset your account password now, please enter your password.

Once you click confirm you will be able to log in with your new password.

Password : ●●●●●●●●   (6 to 20 characters.)

```
<p>
  <label>Password</label>
  <input type = "password" name="usrNm"/>(6 to
  20 characters))
</p>
```

Syntax for the different input Widgets (or controls)
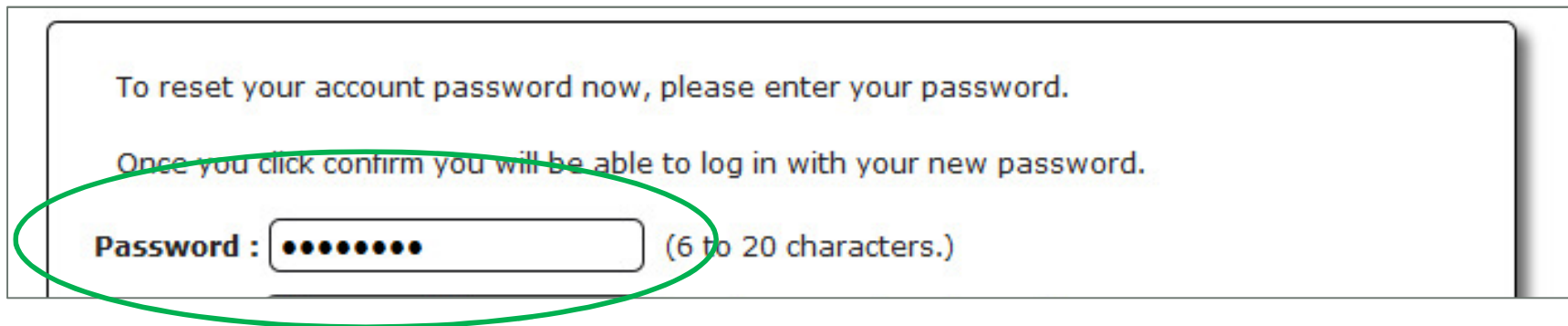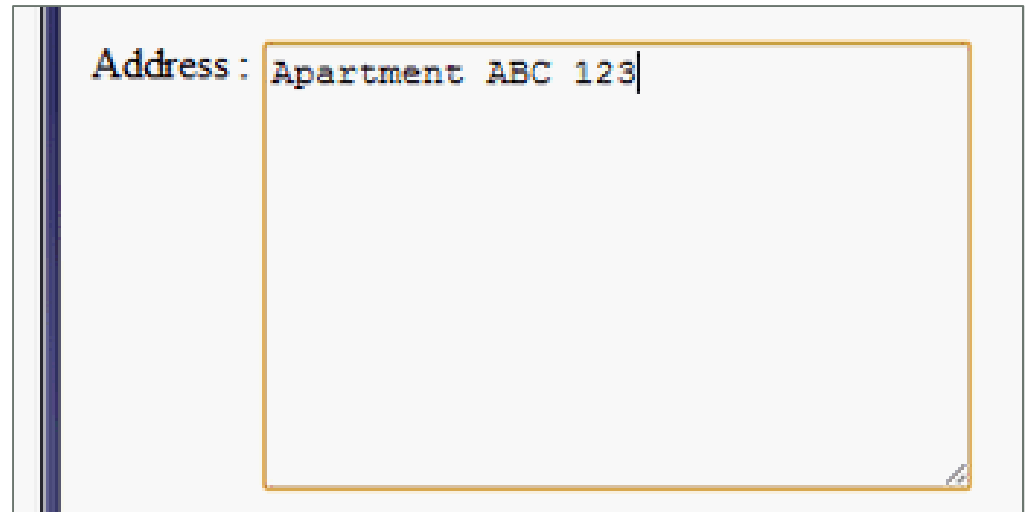
- **textarea** with a **label**


```
<p>
<label>Address:</label>
<textarea name ="address"
          rows = "10"
          columns = "20"></textarea>
```

Syntax for the different input Widgets (or controls)

- **Drop Down Menu**

Welcome to Bahareh's Coffee Shop

What type of coffee would you like? Regular ▼

Welcome to Bahareh's Coffee Shop

What type of coffee would you like? Regular ▼

| Regular |
| Latte |
| Chocolate Mocha |
| White Chocolate Mocha |

What type of coffee would you like?
☑ Regular

```
<label> What type of coffee would you like?
  <select name = "coffee">
     <option value = "reg"> Regular </option>
     <option value = "lat"> Latte </option>
     <option value = "chocMoc"> Chocolate
Mocha</option>
     <option value = "whtChocMoc"> White Chocolate
Mocha </option>
  </select>
</label>
```

Syntax for the different input Widgets (or controls)

- **Check boxes** with a **label**

What type of coffee would you like?
☑ Regular
☐ Latte
☐ Chocolate Mocha
☐ White Chocolate Mocha

```
<form action="">
  ...
  <label>What type of coffee would you like?
    <input type ="checkbox" name="coffee"
        value = "reg" checked/>
    Regular
  </label><br />
  <label><input type ="checkbox" name="coffee"
        value = "lat" />Latte
  </label><br />
    ...
  </form>
```

Syntax for the different input Widgets (or controls)

- **Radio buttons**

What type of coffee would you like?

◉ Regular
○ Latte
○ Chocolate Mocha
○ White Chocolate Mocha

```
<form action="">

    <label><input type ="radio" name="coffee"
          value = "reg" checked/>
     Regular
    </label><br />
    <label><input type ="radio" name="coffee"
          value = "lat"  />Latte
   </label><br />
      ...
  </form>
```

Syntax for the different input Widgets (or controls)

- **Action buttons**


```
<form action="">
...
  <input type = "submit" value = "Submit" />
  <input type = "reset" value = "Reset" />
...
</form>
```

Demo - Forms

- Selection: Coffee2.html

Welcome to Bahareh's Coffee Shop

What type of coffee would you like? [Regular ▼]

What type of coffee would you like?
- ☑ Regular
- ☐ Latte
- ☐ Chocolate Mocha
- ☐ White Chocolate Mocha

What type of coffee would you like?
- ◉ Regular
- ○ Latte
- ○ Chocolate Mocha
- ○ White Chocolate Mocha

[Submit order] [Reset order]

Forms with Legend and Fieldset

- \<fieldset\> is used to group several controls as well as labels.
- \<legend\> provides a label/title for the \<fieldset\>

- (form.legend.html)

```
<form>
  <fieldset>
    <legend>Choose your favorite food</legend>

        <label> <input type="radio"  name="Pizza"/>Pizza</label><br/>

        <label><input type="radio" name="sandwich"/>Sandwich</label><br/>

        <label><input type="radio" name="Fish and Chips"/>Fish and Chips</label>

  </fieldset>
</form>
```

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- Forms – a first look
- `<audio>` element
- `<video>` element

The `<audio>` element

- Prior to HTML5, a plug-in was required to play sound while a document was being displayed such as Flash or Microsoft's Media Player

- New in HTML5 is the `<audio>` tag

```
<audio attributes>
    <source src = "filename₁" >
    . . .
    <source src = "filenameₙ" >
    Your browser does not support the audio element
</audio>
```

- Browser chooses the first audio file it can play and skips the rest of the content of audio element content

The `<audio>` element (cont'd)

- Different browsers have different audio capabilities

HTML Audio - Browser Support (updated Sept/2018)

Currently, there are 3 supported file formats for the <audio> element: MP3, Wav, and Ogg:

Browser	MP3	Wav	Ogg
Internet Explorer	YES	NO	NO
Chrome	YES	YES	YES
Firefox	YES	YES	YES
Safari	YES	YES	NO
Opera	YES	YES	YES

http://www.w3schools.com/html/html5_audio.asp

The `<audio>` element (cont'd)

- The controls attribute, which is set to controls", creates a start/stop button, a clock, a progress slider, total time of the file, and a volume slider

HTML5 Audio Tags

Tag	Description
<u>\<audio\></u>	Defines sound content
<u>\<source\></u>	Defines multiple media resources for media elements, such as \<video\> and \<audio\>

http://www.w3schools.com/html/html5_audio.asp

The `<audio>` element (cont'd)

- The `controls` **attribute of** `<audio>`:

  `<audio controls = "controls" >`

- Creates
  - a start/stop button
  - a clock
  - a progress slider
  - total time of the file
  - a volume slider

`<audio>` element (example)

```
<!DOCTYPE html>
<!- audio.html - Test the audio element -->
<html lang = "en" >
  <head>
    <title> Test audio element </title>
    <meta charset = "utf-8" />
  </head>
  <body>
    This is a test of the audio element
    <audio controls= "controls" >
      <source src = "nineoneone.ogg" />
      <source src = "nineoneone.wav" />
      <source src = "nineoneone.mp3" />
    Your browser does not support the audio element
    </audio>
  </body>
</html>
```

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The <video> element

- Just like <audio> prior to HTML5, there was no standard way to play video clips while a document was being displayed

- New in HTML5 is the `<video>` tag

```
<video attributes>
    <source src = "filename_1" >
    . . .
    <source src = "filename_n" >
    Your browser does not support the video element
</video>
```

- Browser chooses the first video file it can play and skips the content; if none, it displays the content

The <video> element (cont'd)

- Different browsers have different video capabilities

HTML Video - Browser Support (updated Sept/2018)

Currently, there are 3 supported video formats for the <video> element: MP4, WebM, and Ogg:

Browser	MP4	WebM	Ogg
Internet Explorer	YES	NO	NO
Chrome	YES	YES	YES
Firefox	YES	YES	YES
Safari	YES	NO	NO
Opera	YES (from Opera 25)	YES	YES

The \<video\> element (cont'd)

- Possible attributes of the `<video>` element

  - `autoplay`: play as soon as ready
  - `height`: of video player (pixels)
  - `loop`: play video non-stop
  - `muted`: video start off muted
  - `poster`: image to display while video is loading
  - `src`: url of video
  - `width`: of video player (pixels)

The video element (example)

```
<!DOCTYPE html>
<!-- testvideo.html test the video element   -->
<html lang = "en">
  <head>
    <meta charset = "UTF-8" />
    <title> test video element </title>
  </head>
  <body>
    This is a test of the video element.....
    <video width = "600" height = "500"
          controls= "contrpls" loop= "loop" muted= "muted"
          poster = " logoc.png" >
      <source src = "NorskTippingKebab.mp4" />
      <source src = "NorskTippingKebab.ogv" />
      <source src = "NorskTippingKebab.webm" />
      Your browser does not support the video
      element
    </video>
  </body>
</html>
```

Demo – Audio & Video

- audio.html
- testvideo.html
- Testvideo2.html

HTML Validation

- Browsers are designed to be robust and deal with many errors in web pages

- Therefore, most pages on the web have errors
  - Lots and lots of errors

- How pages render, with errors, is browser dependent

- You can validate your pages online using http://validator.w3.org/
- Or offline using IDEs like intelij or

List of tags we have seen …

You try! (Cont.)

- Design a form

You try!

- Design a form