
LECTURE 2

HTML Basics



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HTML Introduction

We'll learn ...

- What HTML is
- What tags are
- What a basic web page look like
- What 3 HTML tags are required
- What HTML comments look like
- How to title your web page
- How to format the text on your web page
- How to create headings on your web page
- How to add pictures to your page

HTML

- Hyper Text Markup Language
 - Markup your text document
 - The markup is the tag
 - Hypertext means you can jump from place to place
- Programming language of the Internet

TAGS

- Look like this: < >
- Come in pairs (every begin tag must have an end tag)
 - <html> </html> PAIRS
- TAGS do not show up on a web page
- There are 3 REQUIRED TAGS
 - 1. <html> </html> ONLY ONE
 - 2. <head> </head> ONLY ONE (maybe put a title in here)
 - 3. <body> </body> ONLY ONE (stuff that shows up)

Basic Web Page

```
<html>
```

```
<head>
```

```
<title> My page </title>
```

```
</head>
```

```
<body>
```

```
Hello this is my page
```

```
</body>
```

```
</html>
```

Head section

Body section

- Tags don't show up on the page

TRY IT out and test it

Comments

- Explains what your code does, who wrote it, when it is written.
- You can have them anywhere in your code

```
<!-- Here is my comment -- >
```

```
<!-- Written by Jill Hubbard, Sept 2009
```

TRY IT out, add the comments

Title Element

- Goes inside the head element
- If you forget it, you'll have an untitled web page
- Looks like this:
 <title> My Home page </title>
- Where does the title show up?

TRY IT out and answer this question

Text Formatting

Text formatting type	What It Does	Example
paragraph	Creates paragraphs of text	<code><p> I'm my own paragraph </p></code>
Line break	Makes the browser go to the next line	I'm Line 1. <code>
</code> I'm Line 2.
Bold	Makes the text bold	<code> I'm bold </code>
Underline	Makes the text underlined	<code><u> I'm underlined </u></code>
Italic	Makes the text italic	<code><i> I'm italic </i></code>
Horizontal rule	Line across the page	<code><hr /></code>

Headings

- Creates different sections for your page
- `<h#>` `</h#>` replace # with an actual number (1-6)
- 1 is the BIGGEST, 6 is the smallest heading
- `<h1>` My heading `</h1>`

Pictures

- Put a picture on your page
- ``
 - Example: ``
- Th

TRY IT out, if you have any issues ask the instructor!

 same folder as the web page!

Let's Use this stuff- Getting Started!

- Create a new folder called “ Project 1”
- Open up YOUR TEXT EDITOR save the file to your Project 1 folder. Name It: project1.html
- Add all the required tags (What are they again?)
- Title your web page: GROUP NO. Project 1
- Add a comment on top of the <head> section listing your names and the date
- In the <body>, add 2 headings. Title the first heading: “My University” and the second: “Fun Stuff”
- Separate the headings with a horizontal rule.
- Find a picture of the University (use google images), download it into your project 1 folder, and add it to the “My University” section of your web page.
- Add a paragraph with 5 sentences to the “My University” section of your page.

Review Questions

- Show a sample Project #1
- Submit Project #1
- How to change the background color
- How to make a list
- Project #2

Review Questions

- What are HTML tags used for?
- What do HTML tags look like?
- What are the 3 required HTML tags?
- What is a comment for?
- What does the code for a comment look like?
- In what section of your HTML code does the title tag go?

Review Questions

- Where does the title show up on your actual web page?
- What are headings used for and what section of your HTML code do they go in?
- How do you make text show up bold on your web page?
- How do you make text show up italic on your web page?

Review Questions

- How do you force the browser to go to the next line?
- How do you make a line show up across your web page?
- How do you make a picture show up on your web page?

Remember A Basic Web Page

```
<html>
```

```
<head>
```

```
<title> My page </title>
```

```
</head>
```

```
<body>
```

```
Hello this is my page
```

```
</body>
```

```
</html>
```

Head section

Body section

- Tags don't show up on the page

Centering and changing the background color

- `<center>` I'm in the center of the page`</center>`
- `<body bgcolor="#XXXXXXXXXX">`
 - Replace the x's with code for a specific color
 - For reference regarding HTML hexadecimal codes visit https://www.w3schools.com/colors/colors_picker.asp

How To Make A List

- Write a code to show this up:

My Favorite courses are:

1. Interactive Website

2. _____

3. _____

Lists

- Ordered(numbered) list

` My Favorite courses are:`

``

``

` Interactive Website`

` _____`

` _____`

``

- Un-ordered (bulleted list)

- Change the ` ` to ` ` and notice the changes.

Project 2 - Create Lists

- Create a new folder called “Group no Project 2”
- Open up your editor and save the file to your Project 2 folder. Name it: project2.html
- Add all the required tags (What are they again?)
- Title your web page: Group no Project 2
- Add a comment on top of the <head> section listing your names, the course name and the date
- In the <body>, add two different lists (one numbered and the other using bullets).

Project 2 - Pick a Theme

- Add a paragraph with AT LEAST 5 sentences to your page about your theme.
 - Make 1 sentence bold
 - Make 1 sentence italic
 - Make 1 sentence underlined
 - Separate the sentences with line breaks
- Choose a background color for you page (or maybe a background image if you're really resourceful!)
- Add an ordered list related to your theme. Add a heading for your list so people know what it's about!
- Add an unordered list related to your theme, Add a heading for your list so people know what it's about!
- Add something fun that your find online:
www.w3schools.com is a good place to start!

Sharing is Caring

- Show your partner your site
- Exit slip:
 - Who is your partner
 - What was the theme of their site
 - What did you like about it
 - What would you change about it

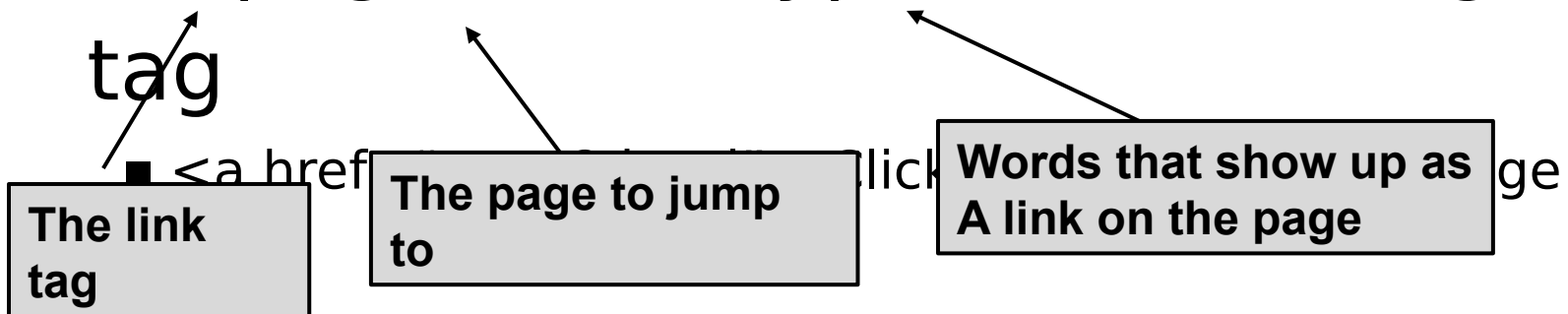
HTML Links

What you'll learn in this lesson:

- Link to a different page of your site
- Link to a different web sites
- More about attributes and elements
- Link to a picture
- Thumbnails (small picture links to a big picture)
- Email link

Links to a different web page in your site

- Make another page using YOUR EDITOR: page2.html
- Here's how to connect (link) your pages together
 - On page1.html type the following



Link to a different web site (like google)

- On your web page in notepad type:

- ` Click here for google`
``

The link
tag

The site to jump
to

Words that show up as
a link on the page

- What's the difference between this and a link to another page in your site?

Attributes and Elements

- **Attributes**

- extra bits of information inside a tag.
 - ``
 - `<body bgcolor="red" >`
 - ` I'm a link `

- **Elements**

- Another name for the begin and end tag and everything in between
- Everything that is in-between and includes the `<body>` and `</body>` tags is the body element.
- `<title>` and `</title>` are *tags*, BUT **`<title>Rumple Stiltskin</title>`** is a title *element*.

Other useful links

- Links to a picture(click on words and open a picture)
 - `< a href="picture.jpg"> Click here to see my picture `
- Thumbnail (click on small pic to open big pic)
 - `< a href="BigPicture.jpg"> `
- Email Links
 - `< a href="mailto:jhubbard@yahoo.com"> Email me `

Let's Use this stuff - LINKS!

- Make a second page for your site by opening notepad and creating page2.html (file-> new, file -> save as)
- Open the first page and add a link called "Click Here to See Second". When you click on this link, it should open the second page
- Open the second page and add a link called "Click Here to See My First Page". When you click on this link, it should open your first page

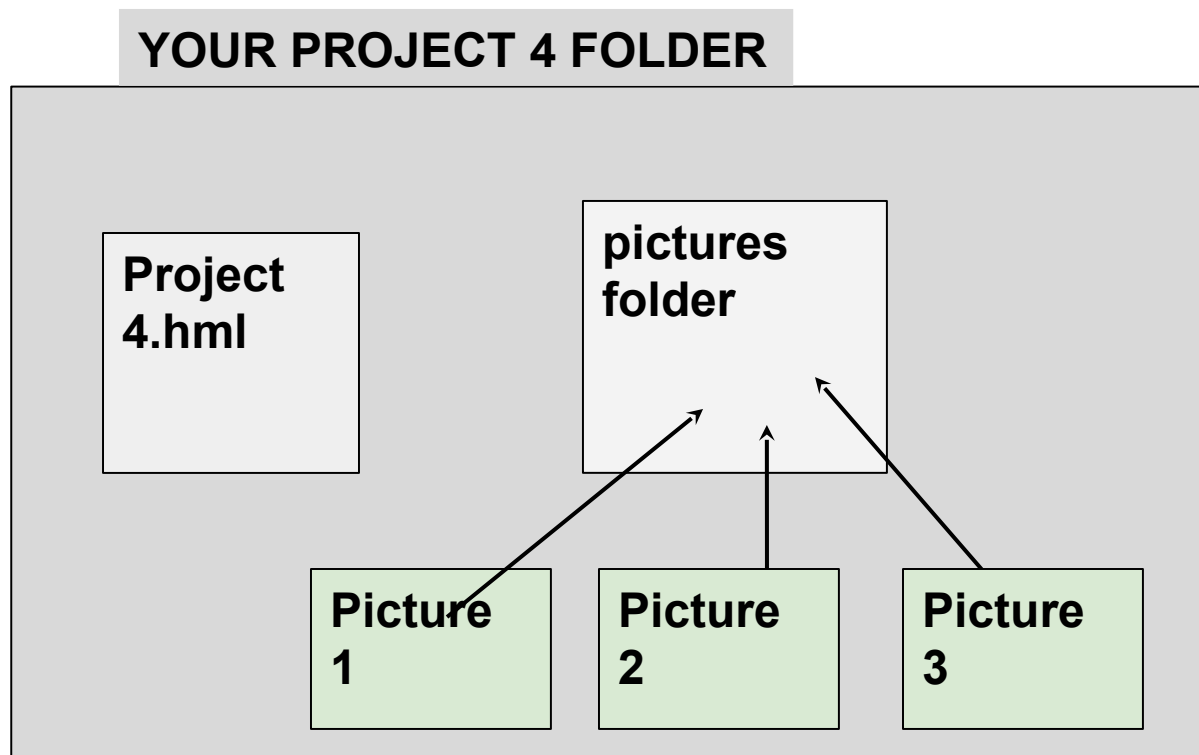
TRY IT out

HTML

Working with — Images —

Pictures in a sub folder (Good Practice)

- Sometimes it easier to put all your pictures in a subfolder (folder inside your project folder)



Pictures in a sub folder

- In the `` tag, you need to tell the browser where to find the picture (starting from where the web page is)
- ``
- Example: ``

LINKS TO DIFFERENT SECTIONS ON A PAGE

- Use this so the user doesn't have to scroll down on the page to see different sections

About Me

Sports

Hobbies

Hello, I'm a student at Tualatin HS. I'm 15 and am taking Algebra, freshman English, earth science, and social studies.

I love running. I've been on a track team since grade school. I run 5 miles a day and plan on running the Shamrock in a couple of weeks. My dream is to run in the Boston Marathon.

I like to read and listen to music in my spare time. I'm going to Sasquatch in a few months and love the Decemberists!

LINKS TO DIFFERENT SECTIONS ON A PAGE

- Called Named Anchors (each link has 2 parts)
- Look Like this
 - LINK `Text to act as hypertext`
 - NAMED `Text to Link To`

About Me
Sports
Hobbies

` About Me `
` Sports `
` Hobbies `

Hello, I'm a student at
Tualatin HS.

`Hello, I'm a students
at
Tualatin HS.`

I love running....

` I love running`

Part 4 Assignment

- Make a copy of your project 3 folder and name it “group no. Project 4”
- Open your project 4 folder and rename project3.html to project4.html
- Open project4.html with YOUR EDITOR
- Create 2 additional headings and add a paragraph of text to each sections.(here are some examples of section headings)
 - My courses this semester
 - List of group members
 - What I like to do after college
- Separate the sections with horizontal lines



Part 4 Assignment (Cont..)

- Add links at the top of the page so that when you click on the link, it takes you to that section of the page.

HTML Tables

What you'll learn in this lesson:

- What are tables and why should you use them
- How to make a table
- How to put content inside your table
- How to make a navigation bar using tables

<p>THIS IS MY SITE</p>	
<p>Hello. This is pretty basic but it showing you that I can put things next to each other!</p>	

This table has 2 rows and 2 columns

How to Make a 2X2 Table

Row 1 Col 1	Row 1 Col 2
Row 2 Col 1	Row 2 Col 2

```
<table border="1">  
  <tr>  
    <td>Row 1 col 1</td>  
    <td>Row 1 col 2</td>  
  </tr>  
  <tr>  
    <td>Row 2 col 1</td>  
    <td>Row 2 col 2</td>  
  </tr>  
</table>
```

Combining the first 2 rows

Row 1 Col 1 and Col 2	
Row 2 Col 1	Row 2 Col 2

```
<table border="1">
  <tr>
    <td colspan="2">Row 1 col 1 and 2</td>
  </tr>
  <tr>
    <td>Row 2 col 1</td>
    <td>Row 2 col 2</td>
  </tr>
</table>
```

Combining the first 2 columns

Row 1 and Row 2 Col 1	Row 1 Col 2
	Row 2 Col 2

```
<table border="1">
```

```
<tr>
```

```
<td rowspan="2">Row 1 and Row 2 col 1</td>
```

```
<td>Row 1 Col 2</td>
```

```
</tr>
```

```
<tr>
```

```
<td>Row 2 col 2</td>
```

```
</tr>
```

```
</table>
```

Coloring Tables

- color the area behind the entire table
 - `<table bgcolor="#880000">`
- color the area behind a single row
 - `<tr bgcolor="#880000">`
- color the area behind a single cell
 - `<td bgcolor="#880000">`

Navigation Bar

Make a Table of Links

HOME	MUSIC	PICTURES	VIDEOS
------	-------	----------	--------

```
<table border =“1”>
```

```
<tr>
```

```
<td align=“center”> <a href = “index.html”> HOME </a> </td>
```

```
<td align=“center”> <a href = “music.html”> MUSIC </a> </td>
```

```
<td align=“center”> <a href = “pictures.html”> PICTURES </a> </td>
```

```
<td align=“center”> <a href = “videos.html”> VIDEOS </a> </td>
```

```
</tr>
```

```
</table>
```

Teacher Guided Classwork

- Lets practice
- Make a 2X2 table!
- Make a folder called “group no. Tables Practice”
- Add required tags and comment
- Now it's table time!
 - Table1: 2X2 with content
 - Table2: merge rows
 - Table 3: merge columns

Formatting Tables

- Pick how wide you want your table to be
 - What's the resolution of your computer screen?
- Figure out the width of each column
 - The width will be the same for each row of your table
 - How wide are your pictures? They need to fit in your column
 - Resize your pictures if necessary
 - change the size in the image tag
 - ``

Table with 2 rows and 3 columns

Controlling the width of your table and the width of each column

← 1200 pixels wide →

I'm 1200 pixels wide		
I'm 500 pixels wide. Anything put here must be < 500 pixels wide!	I'm 300 p Anything put here must be < 300 pixels wide!	I'm 400 pixels wide Anything put here must be < 400 pixels wide!

Here's the code to make it!

```
<table width = "1200px" style="font-family:arial; color:white; font-size:12pt">
  <tr>
    <td colspan = "3" align="center">
      My width is 1200 pixels. If I make my banner 1200pixels wide, it will fill this
      box
    </td>
  </tr>
  <tr>
    <td width = "500px">
      My width is 500 pixels. If I put a picture here, it's maximum width is 500 pixels
    </td>
    <td width = "300px">
      My width is 300 pixels. If I put a picture here, it's maximum width is 300 pixels.
    </td>
    <td width = "400px">
      My width is 400 pixels. If I put a picture here, it's maximum width is 400 pixels.
      Notice that is I add together the widths of each box on this row, it equals 1200
      pixels!
    </td>
  </tr>
```

Part 5

- Make A New Folder Called “group no. Lesson 5”
- Open YOUR EDITOR and save the file in your folder. Name it project5.html
- Add the required tags (WATCH IDENTATION)
- Add a comment
- Now let's add a table to the body

Make Me in the body! Your Theme is MY UNIVERSITY

Heading about UNIVERSITY!	
This to stay on the page	Link to your second page
Cool pic of The University	Text about the University
Footer (copyright symbol, group no, date)	

Questions you'll need to answer

- # of rows?**
- # of columns?**
- Table width?**
- Column width?**

HTML Forms

What are forms?

- <form> is just another kind of HTML tag
- HTML forms are used to create GUIs on Web pages
 - Usually the purpose is to ask the user for information
 - The information is then sent back to the server
- A form is an area that can contain form elements
 - The syntax is: <form *parameters*> ...*form elements*... </form>
 - Form elements include: buttons, checkboxes, text fields, radio buttons, drop-down menus, etc
 - Other kinds of HTML tags can be mixed in with the form elements
 - A form usually contains a Submit button to send the information in the form elements to the

The <form> tag

- The <form *arguments*> ... </form> tag encloses form elements (and probably other HTML as well)
- The arguments to form tell what to do with the user input
 - `action="url"` (required)
 - Specifies where to send the data when the Submit button is clicked
 - `method="post"`
 - Form data is sent in the body of the URL request
 - `target="target"`
 - Tells where to open the page sent as a result of the request
 - `target= _blank` means open in a new window
 - `target= _top` means use the same window

The <input> tag

- Most, but not all, form elements use the input tag, with a type="..." argument to tell which kind of element it is
 - type can be text, checkbox, radio, password, hidden, submit, reset, button, file, or image
- Other common input tag arguments include:
 - name: the name of the element
 - value: the “value” of the element; used in different ways for different values of type
 - readonly: the value cannot be changed
 - disabled: the user can’t do anything with this element
 - Other arguments are defined for the input tag but have meaning only for certain values of type

Text input

A text field:

```
<input type="text" name="textfield" value="with an initial value">
```

A text field:

A multi-line text field

```
<textarea name="textarea" cols="24">
```

A multi-line text field:

A password field:

```
<input type="password" name="textfield3">
```

A password field:

- Note that two of these use the input tag, but one uses textarea

Buttons

- A submit button:
`<input type="submit" name="Submit" value="Submit">`
- A reset button:
`<input type="reset" name="Submit2" value="Reset">`
- A plain button:
`<input type="button" name="Submit3" value="Push Me">`

A submit button: 

A reset button: 

A plain button: 

- submit: send data
- reset: restore all form elements to their initial state
- button: take some action as specified by JavaScript

- **Note that the type is input, not “button”**

Checkboxes

- A checkbox:
`<input type="checkbox" name="checkbox"
value="checkbox" checked>`

A checkbox: ☒

- type: "checkbox"
- name: used to reference this form element from JavaScript
- value: value to be returned when element is checked
- Note that there is *no text* associated with the checkbox—you have to supply text in the surrounding HTML

Radio buttons

Radio buttons:


```
<input type="radio" name="radiobutton" value="myValue1">  
male<br>
```

```
<input type="radio" name="radiobutton" value="myValue2" checked>  
female
```

Radio buttons:

☐ male
☒ female

- If two or more radio buttons have the same name, the user can only select one of them at a time
 - This is how you make a radio button “group”
- If you ask for the value of that name, you will get the value specified for the selected radio button
- As with checkboxes, radio buttons do not contain any text

Drop-down menu or list

- A menu or list:

```
<select name="select">  
  <option value="red">red</option>  
  <option value="green">green</option>  
  <option value="BLUE">blue</option>  
</select>
```

A menu or list: 

- Additional arguments:

- size: the number of items visible in the list (default is "1")
- multiple: if set to "true", any number of items may be selected (default is "false")

Hidden fields

- `<input type="hidden" name="hiddenField" value="nyah">`
 <-- right there, don't you see it?

A hidden field: <-- right there, don't you see it?

- What good is this?
 - All input fields are sent back to the server, including hidden fields
 - This is a way to include information that the user doesn't need to see (or that you don't want her to see)
 - The value of a hidden field can be set programmatically (by JavaScript) before the form is submitted

A complete example

```
<html>
<head>
<title>Get Identity</title>
<meta http-equiv="Content-Type" content="text/html;
      charset=iso-8859-1">
</head>
<body>
<p><b>Who are you?</b></p>
<form method="post" action="">
  <p>Name:
    <input type="text" name="textfield">
  </p>
  <p>Gender:
    <input type="radio" name="gender" value="m">Male
    <input type="radio" name="gender" value="f">Female</p>
</form>
</body>
</html>
```

Who are you?

Name:

Gender: ☐ Male ☐ Female

THE END