

# Basic HTML

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# !!!!WARNING!!!!

- We are about to start talking about writing computer code
- It is EXTREMELY easy to watch someone else do this and say to yourself “Oh, that was easy, I can do that too!”
- It is MUCH harder to actually do it yourself without having the answer in front of you
  - *This class is about doing it yourself with no answer(s) in front of you!*
- Easy way to fail this class:
  - spend less than 10 hours per week (EVERY week) trying out and manipulating what we do in class.
- This is not a joke or a trick ... *if you do not spend at least 10 hours per week outside of class time working on this course, you will likely fail this course.*

# Software We'll Use In CSCI 0022

## Eclipse:

- **www.eclipse.org**
- make sure to install the "Java EE" version after the initial download!
- note that there is LOTS of documentation on this web site, including installation help !!!

## Web Browser:

- recommended: Google Chrome (**www.google.com/chrome/**)
- avoid Microsoft web browsers (explorer, edge, ...); they're not as good for web development

## Help:

- ***PLEASE*** read the documentation to try and resolve any installation issues
  - ***before*** seeing me about them!!!
  - Also, ***PLEASE*** google installation error messages ***before*** seeing me about them!!!
    - most errors/issues have already been found and solved by someone else!!!!
- *This software is all **free**.*

# HTML

- **Hyper-Text Markup Language**
- All web pages are made up of at least some HTML
  - may “wrap” something else, like *flash, pdf, mp4*, ...
- The core element to any true html is a “tag pair”:
  - `<{tag-name} {tag options}> {user text} </{tag-name}>`
  - Notes:
    - the “<” and “>” indicate something special to html
    - the “</” and “>” indicates the end of that “something special”
    - not all tags have options (some even skip the user text)

# Some Simple HTML

Hello, How are you?

<b> I am fine, thank you </b>

What do you mean by <i>fine</i> ??

<b><i>You are irritating!</i>!</b>!

Hello, How are you? **I am fine, thank you** What do you mean by *fine* ?? **You are irritating!!!**

## Some Notes:

- the “b” tag causes text to be bold
- the “i” tag italicizes text
- tags can be nested
- new lines in HTML are not directly displayed!

# Newlines in HTML

```
Hello, How are you? <br></br>  
<b> I am fine, thank you </b> <br>  
<p>What do you mean by <i>fine</i> ??</p>  
<b><i>You are irritating!</i>!</b>!
```

Hello, How are you?  
**I am fine, thank you**  
What do you mean by **fine ??**  
**You are irritating!!!**

## Some Notes:

- the “br” tag drops in a blank line
- the “p” tag surrounds (or begins) a new “paragraph” of text.
- These can be used without “closing” </tag> tags if desired.

# Some Technicalities

Although you could just type the previous HTML into a file and most web browsers will happily work with it ...

- The WWW follows some standards, and most documents look something like:

```
<!DOCTYPE html>
<html>
<head>
<meta charset="US-ASCII">
<title>Insert text for web browser menubar here</title>
</head>
<body>
  Put the HTML you want in the page here
</body>
</html>
```

- Note the “balanced tag” style that we have already seen
- Also, note the “special” tag name that starts with a “!” ...

# Comments in HTML

Man, this is <!-- not --> very easy!  
<!-- What are they saying?  
This is all impossibly Hard and  
-->  
So cryptic!

**Man, this is very easy! So cryptic!**

## Some Notes:

- everything inside of a <!-- text here --> tag is ignored
- these are called comments
- better programmers use lots of these to explain what they are doing so other people can understand their code

# Hyperlinks in HTML

Go ahead

<a href=www.cnn.com>Click Me</a>  
and see where it takes you!

Go ahead [Click Me](#) and see  
where it takes you!

Some Notes:

- the (optional) “href=” is a tag option (see slide 3).
- this option specifies “where to go” when the link is clicked

# Bookmarks in HTML

```
<a href="#lostItem>Find It</a> <!-- note the # -->
<i>haystack</i> <br> <!-- place lots of these-->
<i>haystack</i> <br>
<i>haystack</i> <br>
<i id="lostItem">needle</i> <br> <!-- lostItem is the bookmark name -->
<i>haystack</i> <br> <!-- place lots of these-->
<i>haystack</i> <br>
<i>haystack</i> <br>
```

## Find It

haystack  
haystack  
haystack  
needle  
haystack  
haystack  
haystack

## Some Notes:

- the bookmark “id” can be anything unique
- you can mix a URL with a bookmark
  - ex. href=www.cnn.com/index.html#js-weather\_\_footer
  - try typing the above URL into the location bar in a browser!

# Lists in HTML

Want bulleted or numbered lists?

```
<ul>
  <li>this is an “unordered” list </li>
  <li>use these for information </li>
</ul>
<br /> <!--just for some space, not required-->
<ol>
  <li>this is an “ordered” list</li>
  <li>use when item order matters</li>
  <li>such as directions, etc...</li>
<ul>
  <li>yes, they can be nested!!!</li>
  <li>use this idea with care!</li>
</ul>
</ol>
```

- this is an “unordered” list
  - use these for information
- 
1. this is an “ordered” list
  2. use when item order matters
  3. such as directions, etc...
- yes they can be nested!!!
- use this idea with care!

# Tables in HTML

```
<table border="1">
  <tr>
    <th>Header1</th><th>Header2</th>
    <th>Last Header</th>
  </tr>
  <tr>
    <td>Steve</td><td>90</td><td>Married</td>
  </tr>
  <tr><td>Fred</td><td>2</td><td>Divorced</td></tr>
</table>
```

Header1	Header2	Last Header
Steve	90	Married
Fred	2	Divorced

- tables are a great tool for formatting data
  - what happens when you drop the border option?
- don't forget that you can place anything in a table cell
  - hyperlinks
  - another table (!!)

# Forms in HTML

Want user input?

```
<form>
  login id: <input type="text" name="username"> <br>
  favorite color: <br>
    <input type="radio" name="favcol" value="red">Red
    <input type="radio" name="favcol" value="prp">Purple
  <br>
  What do you own:<br>
    <input type="checkbox" name="owns" value="ip">iPhone
    <input type="checkbox" name="owns" value="xbx">XBox
    <input type="checkbox" name="owns" value="pst">PlayStation
</form>
```

login id:

favorite color:

Red  Purple

What do you own:

iPhone  XBox  PlayStation

We'll see how to process user input later in the semester!

# Some Other HTML tags

- <h1>some text</h1> makes “some text” be a large header
  - <h2>, <h3>, …, <h6> make smaller headers (but still larger than regular text)
- <hr> places a horizontal line across the window.
- <sup>text</sup> places text in superscript
- <sub>text</sub> places text in subscript
- <div>some html</div> groups html; useful for JavaScript later
- <span>some text</span> groups text; useful for JavaScript later
- <img src=path\_to\_filename> includes an image
- <center>text</center> centers text
- need a < in your web page? Use &lt instead (... why?)
- need a > in your web page? Use &gt instead (... why?)
- need an & in your web page? Use &amp instead (... why?)
- Note: all of this barely scratches the surface of HTML
  - for more, surf the web (ex. [www.w3schools.com](http://www.w3schools.com))
  - we’ll also cover more in class as we need it ...

# **!!!!REMINDER!!!!**

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