HTML, CSS and Bootstrap

HTML basics: head, body, headings, links, images

HTML basics are easy to use and remember.

Viewing web pages locally
Browsers can open local files and view them as if they had been served over a network connection. Simply choose **File > Open File...** and choose the .html file from your file system.

Basic HTML example

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <title>This goes on the window bar at top.</title>
  </head>
  <body>

  <h1>This is a big title.</h1>
  <h5>This is a small title.</h5>

  <p>Text inside a "p" tag sets it off like a paragraph.</p>

  Click here to <a href="http://www.scps.nyu.edu">visit Google</a>.<br><br>

  Look at this sweet pic:<br>
  <img src="https://s-media-cache-ak0.pinimg.com/564x/c2/3a/57/c23a57882a33553b9ab5692e531c8596.jpg">
  </body>
</html>
```

The above code looks like this in a browser (with Bootstrap applied):

This is a big title.

This is a small title.

Text inside a "p" tag sets it off like a paragraph.

Click here to visit Google (http://www.scps.nyu.edu).

Look at this sweet pic:

HTML tables

Tables are made of tagged rows which contain tagged cells.

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <title>This goes on the window bar at top.</title>
  </head>
  <body>

    <table>
      <tr>
        <th>id</th><th>Name</th><th>Score</th>
      </tr>
      <tr>
        <td>1</td><td>Joe</td><td>192</td>
      </tr>
      <tr>
        <td>2</td><td>Mary</td><td>235</td>
      </tr>
    </table>

  </body>
</html>
```

The above code looks like this in a browser (with Bootstrap applied):

id	Name	Score
1	Joe	192
2	Mary	235

HTML Forms

Forms are used to send input data from the browser to the program.

```
<form action="myprog.py" method="GET">

  Name:<br>
  <input name="input1" type="text" length="30"><br>    # text blank
  <br>
  Comment:<br>
  <textarea name="input3" rows="3" cols="30"></textarea><br> # big blank

  <input name="input2" type="hidden" value="55">          # hidden value
  <br>
  Vehicle:<br>
  <input name="input3" type="checkbox" value="Bike"> bike<br>        # checkbox
  <input name="input4" type="checkbox" value="Car" checked> car<br>  # checkbox
  <br>
  Color:<br>
  <input name="input5" type="radio" value="red" checked> Red<br>  # radio button
  <input name="input5" type="radio" value="blue"> Blue<br>        # radio button
  <br>
  <input type="submit" value="Go!">                       # submit button

</form>
```

The above code presents the form below. If you submit it, you will see the *parameter string*, pairing the field names with the entered values.

Name:
[   ]

Comment:
[   ]
[   ]
[   ]

Vehicle:
☐ bike
☑ car

Color:
◉ Red
◯ Blue

[Go!]

Using Bootstrap

Bootstrap is a collection of CSS styles and simple javascript actions that are easily applied to any web page.

The slides you're looking at, as well as the other pages in the course website, are styled using Bootstrap at its most basic application.

Bootstrap styles can be saved locally or accessed dynamically with a network connection. Because I sometimes work offline, I saved them in order to access them locally.

To use local Bootstrap files, download **static.zip** from the class data page, and unzip in the same directory as your HTML page (the until will create a **static** folder containing other folders).

In your HTML page, place the following code in your <head> tag (bolded additions are not necessary):

```
<head>
  <title>My Webpage, by Y.T.</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet" href="static/css/Bootstrap/bootstrap.min.css">
  <style>
    pre {
      height: auto;
      max-height: 500px;
      overflow: auto;
    }
  </style>
  <script src="static/css/Bootstrap/js/bootstrap.min.js"></script>
  <script>
    function open_window(url) {
      window.open(url);
    }
  </script>
</head>
```

The bolded portions are additions that I made -- as you can see, it's possible to customize Bootstrap by adding one or more CSS Styles to the same <head> container tag.

To use Bootstrap through a network connection, the tags referencing .css and .js files should look like this:

```
<!-- Latest compiled and minified CSS -->
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css" integrity="

<!-- Latest compiled and minified JavaScript -->
<script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js" integrity="sha384-Tc5IQib027q
```

Many themes have been added to and are available through Bootstrap.

The Bootstrap docs (http://getbootstrap.com/) provide a clear rundown of what is available both for CSS (http://getbootstrap.com/css/) and Javascript actions (http://getbootstrap.com/javascript/).