CMPSC 2323 Internet Programming

Comments in HTML: In high level languages such as Java, C++, C, *etc*. and assembly language you can include *comments*. HTML also provides a way to include comments. Comments usually describe the code to help a person reading it, understand it better. Comments have no affect on the appearance of a web page. They are included primarily as an aide to a person reading or modifying the HTML code. Comments are a form of what people in computer science call *documentation*. Documentation describes code whether it is HTML, a high level language or a low level assembly language.

Starting Point for Exercise 2: Let's continue with our study of HTML. Take the template HTML file named `template.htm`, make a copy of it and name the copy `Exercise2.htm`. Recall that the template HTML code looks as follows.

```
<html>
<head>
<title>  </title>
</head>
<body>
</body>
</html>
```

Let's add a comment to the HTML code and a few lines of text between so that the HTML code now looks as follows.

```
<html>
<! Course: CMPSC 2323
   Name: Mary Smith
   Exercise 2 >
<head>
<title> Exercise 2 </title>
</head>
<body>
CMPSC 2323
<br>
Mary Smith
<br>
Exercise 2
</body>
</html>
```

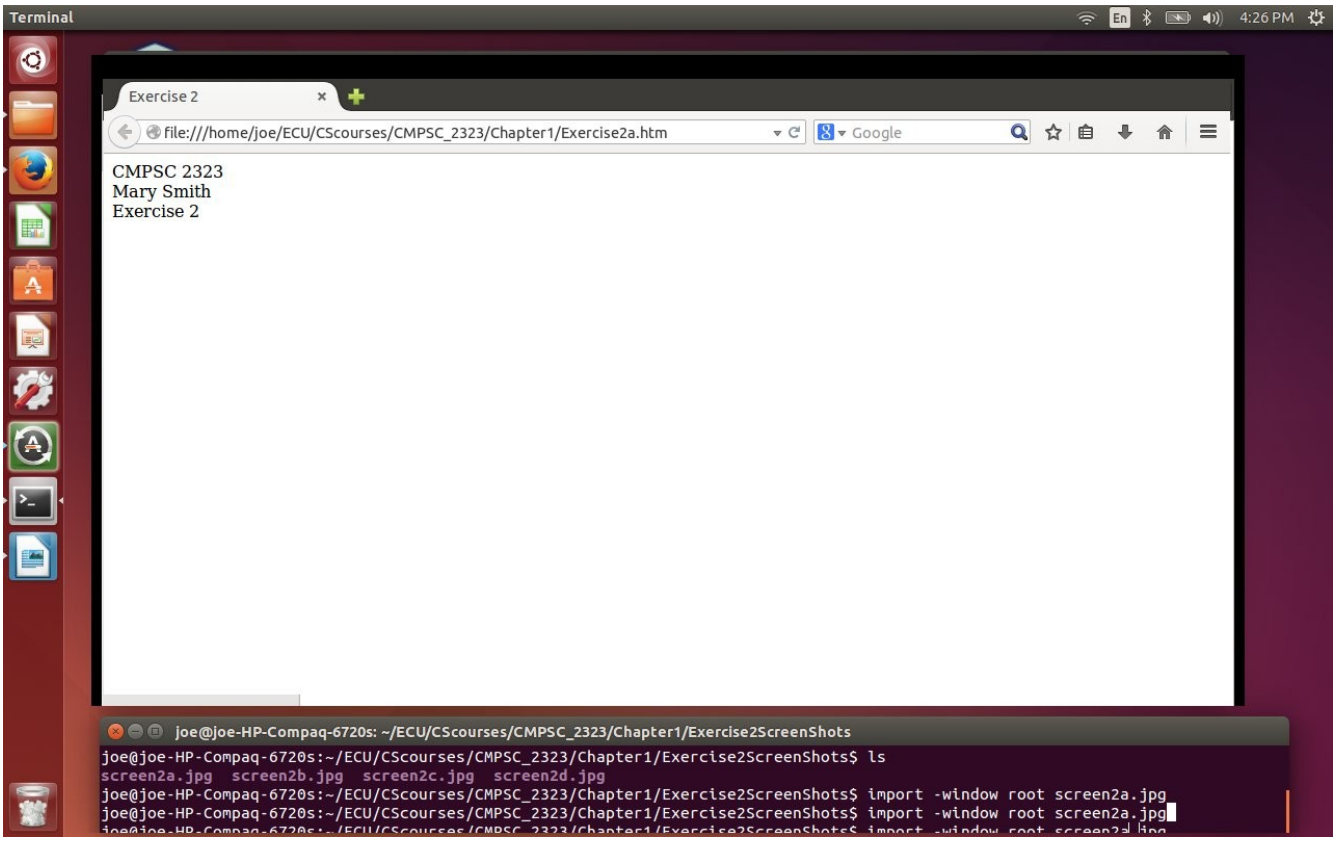
A comment is any text, on any number of lines, that are placed between `<!` and `>`. In the above HTML code the comment consists of the following lines shown on the next page. The symbols `<!` always start a comment and the symbol `>` always ends a comment.

```
<! Course: CMPSC 2323
   Name: Mary Smith
   Exercise 2 >
```

The comment above provides some information for a person reading the HTML code. Edit the code so that *your* first and last name appear in the comment instead of `Mary Smith`. Besides the comment, some other lines were added between `<body>` and `</body>` to the template HTML code, namely, the following lines.

```
CMPSC 2323
<br>
Mary Smith
<br>
Exercise 2
```

In the above lines, replace `Mary Smith` with *your* first and last name. Now save the file `Exercise2.htm`. The file `Exercise2.htm` will be used as a starting point for our next web page. This is a good time to see what the web page looks like. View the web page using your browser. It should look like the following screen shot except with *your* first and last name.



Initial Web Page for Web Exercise 2

You should see

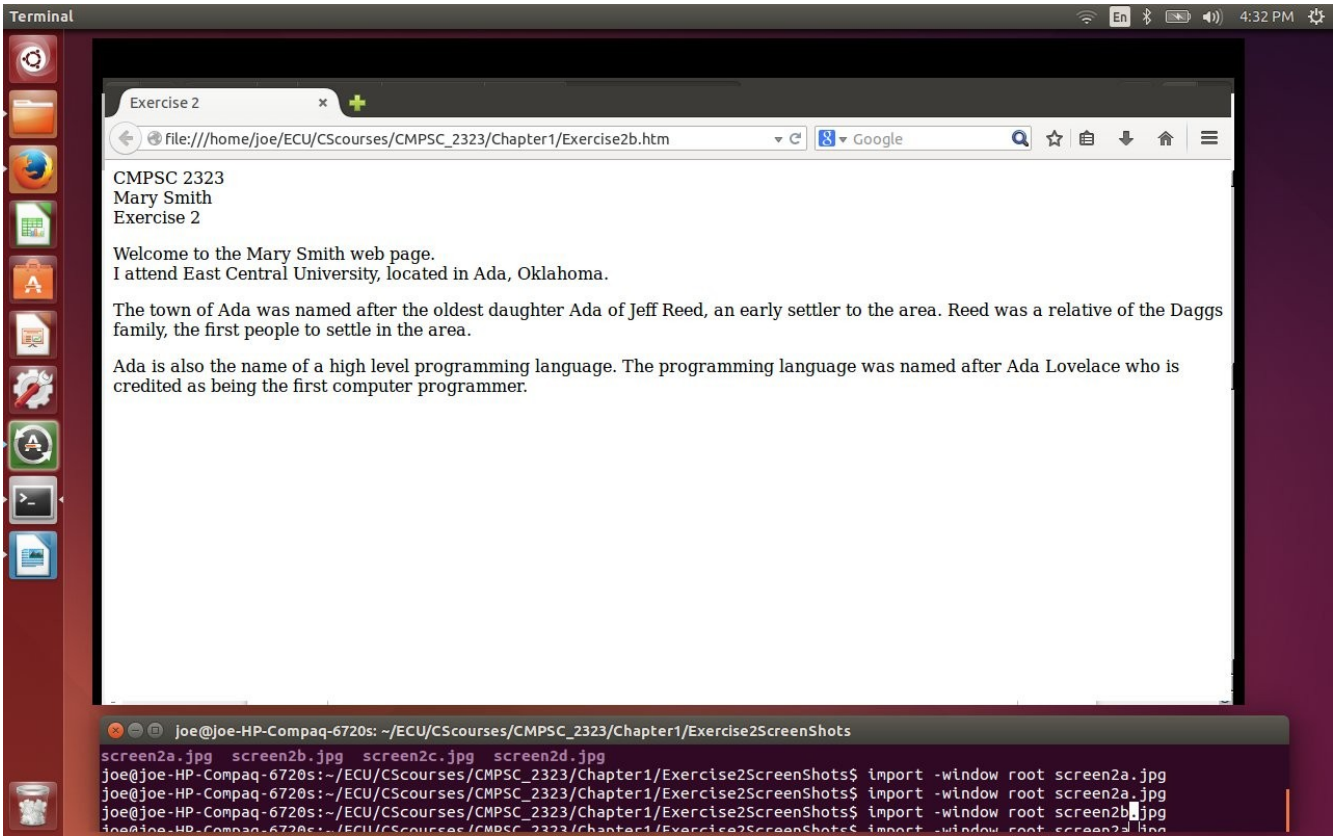
```
CMPSC 2323
Mary Smith
Exercise 2
```

displayed on the web page above except `Mary Smith` will be replaced with *your* first and last name. The title of your web page, namely, `Exercise2` will also be displayed on a tab and/or the browser's title bar. The screen shot above is what you see with *your* first and last name replacing `Mary Smith`.

Paragraph Breaks: We have already used the line break tag `<br>`. It is a tag that doesn't need a matching end tag. There is also a *paragraph* tag. The paragraph tag separates paragraphs and has begin and end matching tags. The begin and end matching paragraph tags are `<p>` and `</p>`. Let's add them, together with some paragraphs, to file `Exercise2.htm` so that the HTML code now looks as follows.

```
<html>
<! Course: CMPSC 2323
   Name: Mary Smith
   Exercise 2 >
<head>
<title> Exercise 2 </title>
</head>
<body>
CMPSC 2323
<br>
Mary Smith
<br>
Exercise 2
<p>
Welcome to the Mary Smith web page. <br>
I attend East Central University, located in
Ada, Oklahoma. </p>
<p>
The town of Ada was named after the oldest daughter
Ada of Jeff Reed, an early settler to the area.  Reed
was a relative of the Daggs family, the first people
to settle in the area. </p>
<p> Ada is also the name of a high level programming language.
The programming language was named after Ada Lovelace
who is credited as being the first computer programmer. </p>
</body>
</html>
```

Add the above paragraphs to the file `Exercise2.htm` and display the resulting web page. Replace `Mary Smith` in the first paragraph with *your* first and last name. An easy way to add the paragraphs is to copy and paste them. An easy way to display the modified web page is to use the *reload* button (or icon). In Mozilla Firefox the reload button is a small curved arrow pointing in a clockwise direction near the top of the window, to the right of `Exercise2.htm`. Your web page should now look as shown in the screen shot below except with *your* first and last name replacing `Mary Smith` everywhere it occurs.



Web Exercise 2 Web Page with Paragraphs

Web Page Lists

Lists: Let's add some lists to the web page. We will look at three types of lists, namely, *ordered* lists, *unordered* lists and *definition* lists. Let's start by adding an ordered list then an unordered list followed a definition list. The HTML code we will add comes after the last paragraph added above and looks as follows on the next page.

Note that a few *comments* were placed in the HTML code below. Which lines are comments?

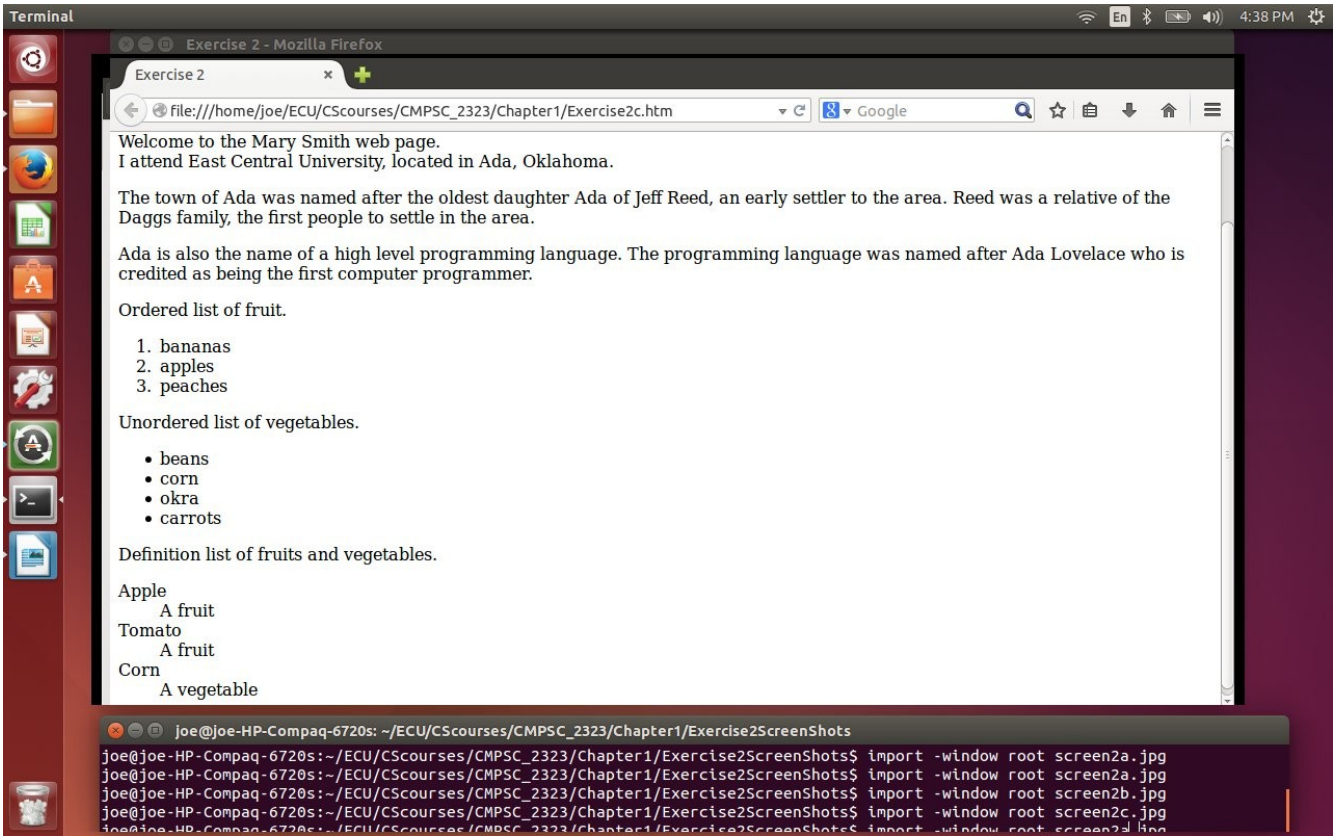
```
<! Here is an order list >
Ordered list of fruit. <br>
<ol>
<li> bananas
<li> apples
<li> peaches
</ol>
<p> <p>
<! Here is an unorder list >
Unordered list of vegetables. <br>
<ul>
<li> beans
<li> corn
<li> okra
<li> carrots
</ul>
<p> <p>
<! Here is a defintion list >
Definition list of fruits and vegetables. <br>
<dl>
<dt> Apple
<dd> A fruit
<dt> Tomato
<dd> A fruit
<dt> Corn
<dd> A vegetable
</dl>
```

An ordered list is identified with the begin and end tags `<ol>` and `</ol>`. Each list item in an ordered list is identified by the tag `<li>`. A list item tag `<li>` does not have a matching end tag. An unordered list is identified with the begin and end tags `<ul>` and `</ul>`. Each list item in an unordered list is identified by the tag `<li>`. Again, a list item tag `<li>` does not have a matching end tag.

A definition list is identified with the begin and end tags `<dl>` and `</dl>`. Each list item in a definition list has a so-called *term* which is identified by the tag `<dt>` followed by a so-called *definition* which is identified by the tag `<dd>` . Like the `<li>` tag, the tags `<dt>` and `<dd>` do not have a matching end tag.

After adding the above lists (note that a few comments were placed in the HTML code, which lines are comments?), save the HTML code and display the web page by reloading it. What does it look like?

It should look like the web page in the following screen shot.



Web Exercise 2 Web Page with Lists

The web page is starting to get large enough that not all of it can be seen in a screen shot. But you can scroll down and see the last portion of the web page, which shows the affect of the new HTML code that was added. Your web page should look like the screen shot shown above.

Centering: Let's see how you can *center* something on a web page. Whatever you want centered on a web page is enclosed within the pair of matching tags `<center>` and `</center>`. Let's add the following HTML code after the last list above to center some things.

```
<! Center the following text with font size 7 colored blue. >
<center>
<font size=7 color=blue> A Famous Quotation </font>
<br> <br>
To be or not to be!
<br>
That is the question.
</center>
```

Now is a good time to save your HTML code and reload your web page to see what it looks like. The text that was centered should appear that way, *i.e.* centered, at the bottom of your web page. If you do not see it, scroll down to the bottom of your web page.

Headings: Headings are often used in documents. They are used in web pages too. Let's add some headings to the web page. Add the following HTML code, shown below, to file `Exercise2.htm` immediately after the above code that was used for centering. Headings are designated by the matching `<h1>` and `</h1>` tags.

```
<! Here are some headings of various levels. >
<p>
<h1> Level 1 Heading </h1> <p>
<h2> Level 2 Heading </h2> <p>
<h3> Level 3 Heading </h3> <p>
<h4> Level 4 Heading </h4> <p>
<h5> Level 5 Heading </h5> <p>
<h6> Level 6 Heading </h6> <p>
```

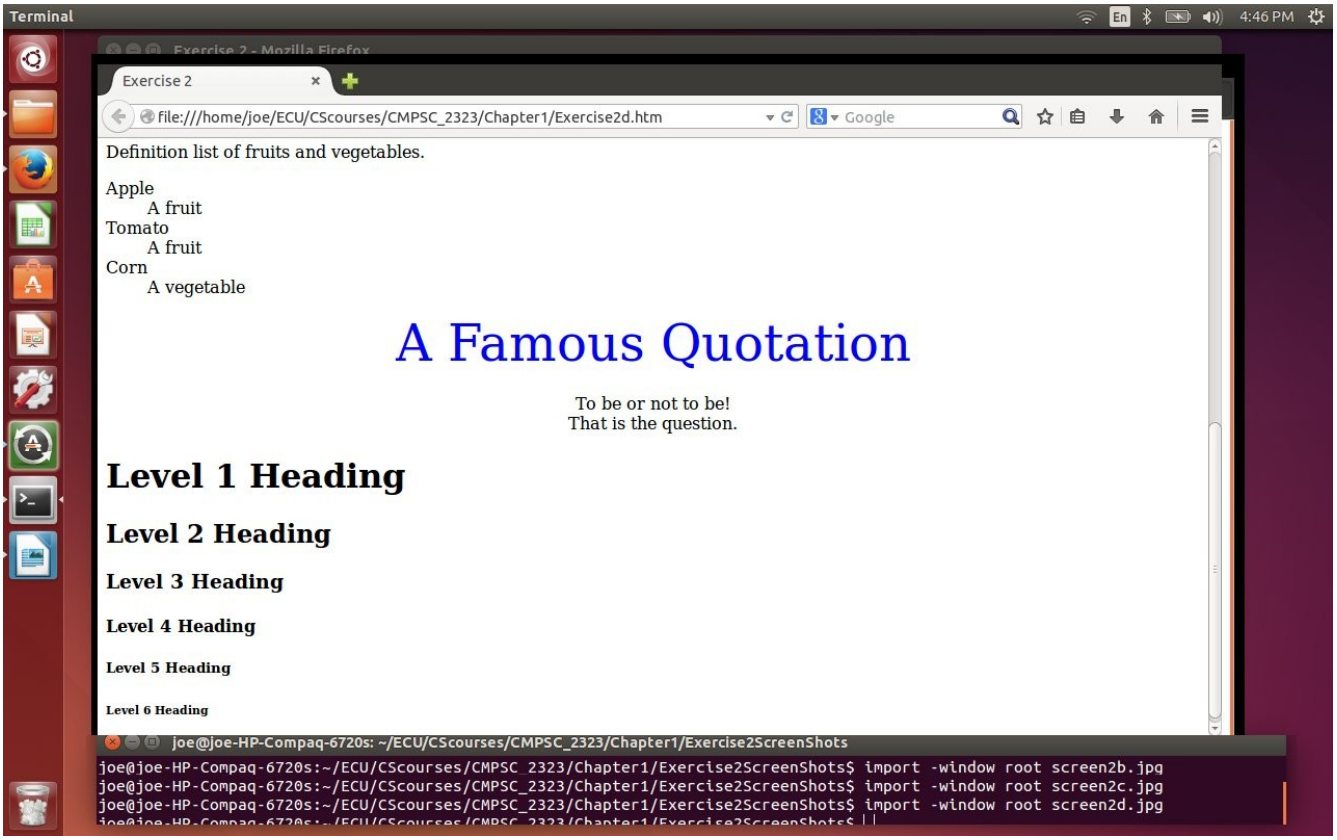
The heading itself is placed between the matching `<h1>` and `</h1>` tags. The value `1` in `<h1>` and `</h1>` specifies a so-called *level* 1 heading. There are up to 6 levels with 1 being the largest and 6 the smallest. The larger the level number, the smaller the size of the heading.

Note that the paragraph tag `<p>` appears in the HTML code above with no match end tag `</p>`. As it turns out, the paragraph tag has an *optional* end tag. Whether it is used with or without a matching end tag, the result is the same.

As HTML has evolved over the years, the earlier restrictions to the language have been relaxed and some tags such as `<p>` which previously required a matching end tag, no longer require it. The end tag `</p>` has become optional.

Now is a good time to save your HTML code and reload the web page to see the affect of the newly added HTML code that centers and displays headings. Your web page should look like the one in the screen shot below on the next page.

You may have to scroll down with the browser to see the bottom of your web page.



Web Exercise 2 Web Page with Centering and Headings

Web Exercise 2 (10 points)

Blackboard: After you complete web exercise 2, submit your HTML code, *i.e.* file `Exercise2.htm` to Blackboard for grading. The due date for web exercise 2 will be posted on Blackboard and announced in class.