There are three exercises below. You can skip straight to them if you know about HTML already, or you can read the text here to get up to speed with writing HTML:

HTML is the HyperText Markup Language. It is used to describe how text, images, and multimedia are displayed by Web browsers. In this lab you will learn more about HTML so that you can create a web page containing headings, interesting fonts, lists, and links as well as applets. This handout provides an introduction to HTML.

HTML uses *tags* to describe the layout of a document; the browser then uses these tags to figure out how to display the document. Tags are enclosed in angle brackets. For example, <title> is a tag that indicates that this section contains the title of the document. Many tags, including <title>, have corresponding end tags that indicate where the section ends. The end tags look just like the start tags except that they start with the character /, e.g., </title>. So the following text indicates that the title of the document is Introduction to HTML:

<title>Introduction to HTML</title>

There are a few tags that almost every document will have: <html>, <head>, <title>, and <body>. Here is an example of a simple HTML document:

<HTML>

<HEAD>

<TITLE>Introduction to HTML</TITLE>

</HEAD>

<BODY>

In this lab you will learn about HTML, which is lots of fun

to use. In particular, you will learn how to use fonts,

paragraphs, lists, links and applets in a web page. Now you

can make your own web page for your friends to visit!

</BODY>

</HTML>

Click [here](HTMLSample1.htm) to see what this looks like in the web browser. Change the size of the browser window (click and drag any corner) and see how the text is reformatted as the window changes. Note that the title appears on the window, not as part of the document.

The HEAD of a document (everything between <HEAD> and </HEAD>) contains the introduction to the document. The title goes in the head, but for now we won't use the head for anything else. The BODY of a document (everything between <BODY> and </BODY>) contains everything that will be displayed as part of the document. Both the HEAD and the BODY are enclosed by the HTML tags, which begin and end the document.

This document contains only plain text, but an HTML document can have much more structure: headings, paragraphs, lists, bold and italic text, images, links, tables, and so on. Here is a document containing a heading, two paragraphs, and some fancy fonts:

<HTML>

<HEAD>

<TITLE>Introduction to HTML</TITLE>

</HEAD>

<BODY BGCOLOR="lightgreen">

<H1 align="center">Introduction to HTML</H1>

<P>In this lab you will learn about <I>HTML</I>, which

is lots of fun

to use. In particular, you will learn how to use fonts,

paragraphs, lists, links, and colors in a web page. Now you

can make your <B>own</B> web page for your friends to visit!</P>

<P>Later in this lab you will do some fancier stuff with

applets and graphics and include an applet on your web page.

Can't you just feel the job offers start rolling in?</P>

<U>Yippee!</U>

</BODY>

</HTML>

Click [here](HTMLSample2.htm) to see what this looks like in the browser.

In this document the <H1> tag creates a level 1 heading. This is the biggest heading; it might be used at the beginning of the document or the start of a new chapter. Level 2 through level 6 headings are also available with the <H2> through <H6> tags.

The <P> tag creates a new paragraph. Most browsers leave a blank line between paragraphs. The <B> tag creates bold text, the <I> tag creates italic text, and the <U> tag creates underlined text. Note that each of these tags is closed with the corresponding end tag. The BGCOLOR attribute on the BODY tag sets the background color.

Note that line breaks and blank lines in the HTML document do not matter -- the browser will format paragraphs to fit the window. If it weren't for the <P> tag, the blank line between the paragraphs in this document would not show up in the displayed document.

**Exercise #1:** Using Eclipse, make a new project (just a regular project rather than a java project.) Call it GR-1 *yourLastName.* Then in the project, make a new file (do *new file,* rather than *new class).* Call the file **MyPage.html.**

It will automatically open in a web browser inside of Eclipse, it will be a blank page until you write it. You will need to edit the web page. Right click on the new file, and open it with the **text editor**.

Write the HTML for a simple web page in the file. Make it about things that interest you. Your page should contain at least the following:

* A title (using the <TITLE> tag)
* Two different levels of headings
* Two paragraphs
* Some bold, italic, or underlined text

Your name should appear somewhere in the document.

When you are done, save the file, then switch over to the web browser in eclipse and hit the play button in the browser. Every time you change the html in the text editor, save it, and refresh the web browser to see the results.

If you would like to see how your page looks in a normal web browser (outside of Eclipse), right click on the file and select **system editor.** Every time you change the html in the text editor, save it, switch to Internet Explorer, and hit the refresh button or F5.

### More HTML

**Lists** We often want to add a list to a document. HTML provides two kinds of lists, *ordered* (e.g., 1, 2, 3) and *unordered* (e.g., bulleted). A list is introduced with the <OL> or <UL> tag, depending on whether it is ordered or unordered. Each list item is introduced with a <LI> tag and ended with the </LI> tag. The entire list is then ended with </OL> or </UL>, as appropriate. See examples for doing lists on this page: <http://www.w3schools.com/html/html_lists.asp>

**Exercise #2:** Add a list, either ordered or unordered, of at least three elements to your web page.

**Links** Links connect one document to another. Links are created in HTML with the <A> (anchor) tag. When creating a link you have to specify two things:

* The URL of the document to go to when the link is clicked. This is given as the HREF attribute of the A element.
* How the link should be displayed (that is, what text or image to click on to go to the linked document). This appears between the <A> and </A> tags.

For example, the code below creates the link shown, which goes to a page about the history of computing:

Learn more about <A HREF="http://ei.cs.vt.edu/~history">the history of computing.</A>

Learn more about [the history of computing.](http://ei.cs.vt.edu/%7Ehistory)

Read more about links in at <http://www.w3schools.com/html/html_links.asp>

**Exercise #3:** Add at least one link that ties in to the material on your web page.