CS 110 – Introduction to Information Technology
Final Project
Due Date: 9 a.m., Friday, December 16th

This Final Project will integrate and showcase many of the skills you have acquired in this course. You are to research any topic of your choosing and create a set of three interlinked web pages that report what you learned. The web page’s HTML must be authored using your own HTML skills and you cannot use web development software (FrontPage, Dreamweaver, Netscape Composer, etc.). Your web pages must satisfy several technical specifications that will require the use of Excel to create graphs and PowerPoint to create aesthetic visuals.

Details

- Research a topic using at least three resources (web references permitted). We will not be grading the quality of your research, but it should be sufficient to provide the material you need to create meaningful web pages that possess the attributes listed below.

- Build at least three web pages. One of these pages should be a list of references. Your content should be distributed among the three (or more) pages in a thoughtful way.

- Document your references on the web pages using MLA Style
  - http://owl.english.purdue.edu/handouts/research/r_mla.html

- Construct a navigation bar that is used on all your web pages. The navigation bar permits the viewer to move from any one of your pages to the others. The navigation bar may be a row or column of buttons (or words arranged in a table) that appears in a common location on each page. You can replace the unappealing HTML text-based links with graphical ones using PowerPoint to create buttons with interesting shapes and formatting.

- Use at least one table anywhere on the web pages.

- Display an image that is not physically stored in your home directory. That is, one of your pages should display an image that is elsewhere on the web. Your web page must make it clear to the viewer where the image came from using a caption that names the page where the image was found and includes a hyperlink to that page.

- Display an image of a graph you created using Excel.
  - You can export Excel graphs as images by using PowerPoint as an intermediary. Create the graph in Excel and put it in the cut buffer. Paste
the graph in PowerPoint. **Right-click** on the graph in PowerPoint and select “Save as Picture.” Pay attention to the image format you select. JPEG is the recommended web format.

- Use PowerPoint to create an aesthetic banner image that will run across the top of all your web pages. The banner image should display the title of your project and can include images, colorful backdrops, multiple shapes, etc.
  - You can export your PowerPoint creation as an image by using PowerPoint’s *group objects* and *save as picture* features. Your banner will likely include multiple items (shapes, text, images). PowerPoint permits you to *select* multiple items simultaneously by repeatedly pressing `control+click` to select all the items one after another. Because your items will likely be collocated, you can also click and drag to select them all at once. Once all your items are selected, you can use the *Group* button that is nested within the *Draw* menu. The Draw menu is part of the *Drawing Toolbar*. Once grouped, all the items that compose the banner can be saved as a single image by right-clicking on the group.

**Submission**

Your work must be publicly accessible on the virginia.edu web servers by the due date. Your index.html must be submitted via Toolkit. Don’t forget to do both, submit via Toolkit AND leave your project accessible on the web.

Your work must be reachable using the following URL:

http://www.people.virginia.edu/your_id/Project

To accomplish this, you must create a subdirectory under your Home Directory’s public_html directory. The name of this subdirectory must be Project. Inside the Project directory, you must include the three or more HTML files you have created. One of those HTML files must be named index.htm (or index.html) so the URL listed above will permit the user to begin browsing your web project.

**Example**

You can find an example web project that satisfies most of these requirements here:

http://www.cs.virginia.edu/~cs110/Brogan/Homework/FinalProject/

Note that for this example web project, we have hidden the HTML source by displaying each web page as one large JPG image. The navigation buttons still permit you to click on the “Research” and “References” buttons because of an HTML technique called *Image Mapping*. This functionality was only used for this example and is not required for your final project. Of course, it is the HTML source that we will care the most about when grading your final project. You must create the source that results in web pages that look like those in this example.
Suggestions

Pick a topic of interest to you. Remember, your topic must be amenable to using a graph to complement your presentation.

The example web site uses a lot of tables. You’ll find HTML tables are very powerful tools for creating blocks of content with visual separations. It’s not uncommon for every piece of a web page to be situated someplace within a master table that organizes all web page’s content.

Honor Policy

This is an individual assignment and all submitted work is pledged to be your own. You may use any reference materials you wish. Do not copy portions of web sites verbatim in order to create your pages. Use your creativity to produce a one-of-a-kind page.