TGIS 503 Lab 1 – Making a website from scratch

Lab Specification Document

1. Introduction

a. This lab is intended to help you dive into web development. In this lab you will develop a webpage from scratch and add some content to it. This document outlines the steps you should take to get started building a website and the required functionality that must be available in the final submission.

b. Labs in this class will not be step-by-step instructions. It is expected that if you don't know how to do something that you attempt to find the answer, ask your peers, or come to me for guidance. I've included some helpful links at the end of this document that should be a good starting point for figuring out how to do specific tasks.

c. This website should teach me something. It can be about anything as long as there is a coherent theme for the page. It should have interactivity and allow me to navigate around different subjects surrounding your topic. Use as many different types of media as you are comfortable with to help convey your point. Specific requirements and grading rubric can be found in this document in sections 3 & 5.

2. Setup

a. In class we went over how to get started using a text editor to write HTML code and open it in a web browser. This section will outline what we went over in class.

b. Download a text editor. I suggest Atom, but there are plenty of other ones out there (links at the end of this document), and you're welcome to use whatever editor you prefer.

c. Make a new file called **index.html** and paste the following code into it. This starter html file is also available on Canvas.

```
<!DOCTYPE html>
<html>
	<head>
	</head>
	<body>
		<h1>Hello World!</h1>
	</body>
</html>
```

d. Save the file and open it with your preferred browser.

e. If you need further reference check out the Week 1 Lecture notes

3. Minimum Functional Requirements

This section defines the Minimum Viable Product (MVP) requirements for Lab 1. Each of the following MUST be satisfied:

a. A functional website with at least 3 different pages. When I run it there should be no errors.
b. A title, paragraph headers, text content
c. At least 2 pictures (1 using a local image, and 1 using a URL pointer)
d. Hyperlinks to navigate between pages
e. Include a CSS FILE. Do not write CSS in the head of the HTML file.
f. Define properties for at least 3 CSS selectors to dictate the styles of headers, paragraphs, images, or some other element
g. Define at least 1 CSS class to dictates the style of an element you want to style uniquely
h. Add color and change fonts to beautify the site

4. Bonus Requirements

If HTML and CSS are not new to you (or even if they are) and you want to challenge yourself to go beyond these requirements, by all means please do! Bonus points will be awarded on a case-by-case basis. Some ideas for additional things to include are:

a. Embed an iFrame (perhaps containing a map!)
b. Instead of using text hyperlinks to navigate pages, use buttons
c. Using CSS, organize content and pictures in a grid to make your site appear more legible
d. Design and implement a header bar for your website navigation

5. Deliverables:

To complete this assignment, submit a zipped folder containing:

- All HTML files I need to run your website
- Any CSS files you created for your website
- Any local images required by your website
- Any other files needed to run the website

6. Grading Rubric

Item	Description	Grade
Functional Website/min 3 pages	The website opens and works on multiple browsers without errors or dead links	/2
Title, Headers, Content	Using different HTML tags, include titles, headers and content in the webpage	/2

Content is legible & coherent	Don't just use filler text or lorem ipsum, use actual content	/2
Contains at least 2 pictures	Add at minimum 2 pictures to the page. One must be from a URL and one must be local.	/2
Page Navigation	Using hyperlinks navigate to other pages – User should never hit a dead end	/2
Attach a CSS File	Import a CSS file to your HTML. *Do not write css in the html header or in-line*	/2
Define properties for at least 3 CSS selectors	Use CSS selectors and properties to style headers, paragraphs, links, etc.	/2
Create 1 CSS Classes	Create at least one CSS style class and use it in the webpage	/2
Change colors and fonts	Beautify the site with nice colors or fonts	/2
Properly formatted HTML/CSS	Use the proper indenting/formatting standards for all HTML or CSS files to keep it organized	/2
Total MVP		/20
Bonus points	Awarded on case-by-case basis	
FINAL LAB 1 GRADE		/20

7. Helpful Links

Text Editors:

Atom: https://atom.io/

Notepad++: https://notepad-plus-plus.org/

Sublime: https://www.sublimetext.com/

Reference documentation:

The internet is full of help, especially for HTML/CSS/JS developing. The hard part is deciphering what is useful for you. StackOverflow is very popular, but it's sometimes complicated for beginners because it uses a message board format and it can be hard to find what you're looking for. I suggest checking W3 Schools and Mozilla Developer Network (MDN) first. Both provide comprehensive reference guides and many helpful tutorials. See the links below:

W3 Schools HTML: https://www.w3schools.com/html/default.asp

W3 Schools CSS: https://www.w3schools.com/css/default.asp

W3 Schools CSS classes: https://www.w3schools.com/cssref/sel_class.asp

Mozilla Developer HTML: https://developer.mozilla.org/en-US/docs/Web/HTML

Mozilla Developer CSS: https://developer.mozilla.org/en-US/docs/Web/CSS