IT 1150 - Intro to Web Programming  
**Lab 1**

***Overview:***In this lab we start to explore what HTML and CSS are, download and install a development environment (I recommend Visual Studio Code), and develop our first web page.

Please add all responses, code, and screenshots to this document. **Please leave the original questions.** The responses, code, and/or screenshots should directly follow each question.

***Directions:***

1. Chapter 1 questions (2 points each):
   1. Describe the purpose of HTML and CSS.

In a web page, html provides the structure and backend programming, while css provides the looks of the page

* 1. What is the W3C and how is it important to web development?

The W3C is an organization that establish web programming ethics. Ethics are important to have in programming in order to keep the program people-minded and community-minded

* 1. What is the difference between a text editor and a development tool? Give an example of each.

A text editor simply allows one to write text on a page, such as Code or Atom. A development tool has a text editor as a part of it but also allows one to run their program amongst other features. An example of this is Visual Studio.

* 1. Explain the main components of an HTTP URL.

The components of an HTTP URL are:

* + - A scheme – “http://” or “https://” – this decides how the computer is going to access the internet.
    - A host – “www.example.com” – This identifies the host or where on the internet you’re going.
    - A path – “/software/htp/cics/index.html” – this is the directions your computer takes to go to a specific place in the host.
    - A query string – “?query=string” – this is a piece of info or a command that the resource can use
  1. What is ADA and how does it relate to web development?

The Americans with Disabilities Act makes sure that even people with disabilities have the same opportunities and access to websites.

1. Use Google to search for “search engine optimization.” Explore a couple of links for more information. Describe the major factors in “search engine optimization. (4 points) – Be sure to include additional resources that you use on a “resources” page at the end of the document.

Quality of Traffic – if Google thinks you’re an Apple employee when you’re really an apple farmer, that is not quality traffic

Quantity of Traffic – The more traffic the better

Organic Results – Any traffic you don’t have to pay to get on the search engine

1. Now search for “responsive web design” and after exploring write a paragraph describing this concept. (4 points) Be sure to include additional resources that you use on a “resources” page at the end of the document.

Responsive Web Design is web design that responds to changes in the size of the window and across platforms. For example, the mobile version of Github viewed on Safari looks quite different than the desktop version viewed on Chrome. It is done by using flexible arrays and cropping/scaling pictures. One example of a something used by a flexible web page is when a header will say “<h1 style=”font-size:10vw”>Hello World!</h1>.” The font size of the header will scale with the window resolution.

1. Chapter 2: Download the textbook start files and complete the following (12 points):
   1. Page 83 Exercise 2-2 (note: you are not required or encouraged to download the software. You can use any editor. Be sure to include your completed code and a screenshot of your web page.)

The code and screenshot will be attached along with this file.

1. Let me know if you have questions or concerns. You have a two-week span for the lab so be sure to get an early start so that I can effectively answer any questions that you may have.1a

***Deliverables:***  
Submit this Word Document as an attachment to the Blackboard drop box for Lab

***Resources:***

<https://moz.com/learn/seo/what-is-seo>

<https://www.smashingmagazine.com/2011/01/guidelines-for-responsive-web-design/>

<https://www.w3schools.com/html/html_responsive.asp>