Introduction to ITWS

Quiz 1: October 3, 2022

**Directions**

There are 3 questions of multiple parts. Point values and suggested times are indicated

Place your name on the top of the document in the header

Enter your answers directly into a copy of this document (with the exception of #3)

All answers should be in be in Your Own Words, and use proper grammar

Make sure your answers use an alternative font AND color – (a legible font, and not Black or Red)

* By now, you should have your local iit folder, your GitHub, and your Azure iit repo connected
* Create a branch call iitQ1 – you are to work in this branch for this quiz
* Somewhere below the root (iit) folder of your site, and consistent with your IA, create a folder for this quiz named: f22Quiz1
* Save this document (or a copy) as: *yourRCSid*-quiz1.docx (or doc) into this folder
* Copy your index.html (from lab3) and your website’s CSS into a new
  + *yourRCSid*-quiz1.html and
  + *yourRCSid*-quiz1.css file
* Place these into your quiz folder created above
* When finished with the quiz, zip your website root (iit) folder and all related files into a file named

ITWSQuiz1-*yourname*-*yourRCSid*.zip

* Submit the ZIP file to LMS
* Commit your changes to your repo in the q1 branch

**Additional Notes**

DO NOT merge the branch back to main

DO NOT move these changes to your webserver

Make sure your submitted document remains in MS Word format – (Pages, GDocs, etc… will not be graded.)

Follow all these instructions and additional instructions throughout this document, or you will lose points

1. Network protocols, HTML & WWW: (20 points, 10 minutes)  
   1. What is a VPN and what is it used for? If you have used it, how have you done so and why – be specific? (5 points)

A VPN is a virtual private network which means it is a private network that provides security between a device and the internet. It is an encrypted server and hides a device’s IP address from other corporations and elements. I have used a VPN for logging into my RPI webmail at home. RPI does not allow other networks to access the webmail unless it is the RPI wifi, and since my house wifi is not a private network, I had to use the Cisco AnyConnect VPN.

* 1. As discussed in class, what is a protocol? What are some examples, and explain how we found them during class (5 points).

A protocol is a set of rules that governs the treatment and formatting of data in electronic communications systems. Some examples of protocols are HTTP, UDP, and IP. We found the HTTP example during class by visiting a website such as <http://www.facebook.com> and selecting the tools and page info from the menu bar. Then we selected “Headers” to see the request and response through Chrome Developer Tools.

* 1. Explain the IP and OSI stack as discussed in class. How are they different and why? (5 points)

The IP and OSI stack are two different network models. The IP stack is the Internet Protocol Suite that includes the following layers from top to bottom: application, transport, internet, and link. The OSI stack is a reference model that has 7 layers: application, presentation, session, transport, network, data link, and physical. This is different from the IP stack since the OSI stack is broken down into more layers to describe the references going on in the IP stack.

* 1. Explain, using the example given in class, the difference between TCP and UDP. Give an example of each’s use (5 points)

The difference between TCP and UDP is TCP is a protocol that has connect while UDP is a protocol that is connectionless. TCP is a segment of data or a datagram that requires the three-way handshake while UDP sends requests and responses while being faster.

1. DevOps (20 pts, 15 minutes)
   1. What is a webserver, and how are we using them in this class (if at all)

A webserver is software and hardware that uses HTTP and other protocols to respond to different requests made on the web. A webserver then responds, pulls, and displays this information to the user. We are using webservers in class since the lab where we each created our own virtual machine on Microsoft Azure and connected our server to phpMyAdmin. We now use this virtual machine and server to create our own webpages to display labs and our resume that we created through HTML and CSS.

* 1. What is GitHub, and why do we use it?

GitHub is an internet hosting service that allows control to bug tracking, requests, task management, and wikis for different projects. We use it to keep track of all our progress, tasks, and our servers through our repositories.

* 1. Explain, in detail, your development process. How do you create markup and other files on your local machine, and get them to your web server? Explain in detail, making sure to expound upon each step in the process.

I create markup and other files on my local machine by creating files in my iit folder that is linked to my server and github. Whenever I make a change to a file, I go to Github on desktop and commit the changes I made to main by adding a summary and a description of those changes. Then, I push those changes to my Github repository. I open Terminal on my local computer and ssh into my virtual machine and then “cd /var/www/html/iit” to access my iit folder on my server. I check the status of my git on my machine by typing “git status”. I then pull the files from the online repository by typing “git pull”. I check my iit folder by typing “ls -la” and there I can see the changes I made on my folder and any new files added. Finally, I check the status of my git on my machine to see if everything is in place by typing “git status”.

* 1. What do the following commands do
     1. ssh FQDN

Opens a terminal session on a local computer and allows to ssh into my server and access our virtual machine.

* + 1. cd /var/www/html/

Allows us to access our iit folders in our server.

* + 1. chown

Allows to change the user or group ownership of a file, directory, or link.

* + 1. sudo

A utility that allows to run commands on our linux machine with supervisor authority.

* + 1. htpasswd

Allows to set a password for authentication for a HTTP user that allows the iit folder to be seen by those authenticated users.

1. HTML & CSS (40 points, 40 minutes) In Lab 3, you created a website to host your classwork; specifically, your labs, according to your Information Architecture (IA).
   1. What is relative linking? How do we use it? Answer in detail below

Relative linking is a link or URL that only contains the path following the domain wanted. It conveys the address that is relative to where you are instead of giving the complete location of your site. We use relative linking by using the <a href=”domain.html”> Link to page </a> in HTML.

* 1. I am in /iit/index.html and I want to reference my style guide file which is in /iit/resources/css/mySite.css. Write the markup for this below.

<link rel="stylesheet" href="mySite.css">

* 1. Write the css to select the 3rd li only, of the first <ul>, given the following HTML. Include the CSS below the HTML in this document

<ul id=”myFirstList” class=”myLists”>

<li>first</li>

<li>second</li>

<li>third</li>

<li>fourth</li>

</ul>

<ul class=”myLists”>

<li>first</li>

<li>second</li>

<li>third</li>

<li>fourth</li>

</ul>

#myLists <li.3> {

}

* 1. I want you to add an image to the top right of your page. Write the HTML to include an image named myHeadshot.jpg, with a height of 100 and a width of 75 pixels. Add CSS to place it in the top right corner of the page. (Place the code in *yourRCSid*-quiz1.html and *yourRCSid*-quiz1.css)
  2. Add an absolute link to your LinkedIn page and attach it to your header
  3. Place a border around your page (including your header and footer). It should be 3 pixels wide, green and a dashed line
  4. Add a background color to the HTML document, that is different from the background of your page. Make your page width 95% of your document’s width.

1. “TravelBank” Case (20 points, 20 minutes)
   1. Based on the conversation in class, did you change your opinion? Why or why not? Be specific. (10 points)

I did not change my opinion about how TravelBank should not have accepted the acquisition deal with U.S. Bancorp. I feel like TravelBank was still very new as it is a startup, and given the amount of hardwork and time the TravelBank team put into switching the business mission and model, there was no need to sell it to U.S. Bancorp. Yes, there is a point that there was a heavy loss due to the pandemic and the money from U.S. Bancorp’s deal would help with that issue, but in my opinion, the founders and employees of TravelBank could still make enough money and more if they continued their partnerships with other businesses and expanded more in the fintech industry. Also, the company culture of TravelBank and U.S. Bancorp are very different, so keeping TravelBank as its own entity is very important.

* 1. Since the case ended, what has happened to TravelBank?(10 points)

TravelBank went through with the deal and was acquired by U.S. Bancorp in 2021 for 200 million dollars.