Introduction to ITWS

Quiz 1: February 12, 2024

**Directions**

There are 4 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 named: *yourRCSid*-quiz1.docx
* All answers should be in complete sentences, 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)
* Create a branch called quiz1 in your repository. Work in this branch for the quiz
* Place all files for this quiz in this folder
* When finished with the quiz, commit your changes and push them to GitHub
  + Do NOT merge your changes – or you will lose points
* Submit a copy of your repository to LMS

**Additional Notes**

* Answer question referencing (as appropriate) content and example from class.
* 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) Answer the following question referencing (as needed) content and examples from class.   
   1. What are FTP & HTTPS? What is the difference (if any)? Include a definition in your answer as well as an example used in class. (5 points)

HTTPS is Hypertext Transfer Protocol and FTP is File Transfer Protocol. HTTPS allows access to web pages from servers while FTP is only one computer to another. FTP is more efficient for big file transfers.

* 1. What is a URI? Be descriptive and detailed in your answer using descriptions from class (5 points).

URI is Uniform Resource Identifier. Which is the value of a hypertext reference. In class we talked about URL which are uniform resource locators being the main ones for websites following the format of: scheme://domain:port/path/path?query\_string.

* 1. What is the cascade as covered in class? Make sure to include the concept of precedence and why its important. (5 points)

Cascade is when the more specific stylization trumps over the less specific so IDs are favored over classes and later styles of the same element trump over the previous ones. The concept of precedence allows for the website to see which style should be used over another if they are affecting both of the same elements.

* 1. What is an ID? What is a class? Give an example of each, and an explanation of why one might be used over another. (provide an example) (5 points)

An ID is a unique name for an element. While a class is a non-unique identifier. An example of an ID is <div id=”header”></div> and an example of a class is <div class=”picture”></div> An ID is used when there is only need for it to be once in the document and the class can be used on multiple different elements such as if you want to style all pictures to be the same way.

1. DevOps (20 pts, 15 minutes) Answer the following question referencing (as needed) content and examples from class.
   1. What is an instance? How is it relevant for this class?

An instance is a single occurrence of anything. This is relevant since each time we are coding our website we are going to use Azure to create an instance which is a Virtual Machine.

* 1. What is a Pull Request, and what is it used for? Include the difference between a PR and a Merge. How are we using this in this class? How is it important in the development process?

A pull request is a request for your changes to be retrieved from another branch and merged into the branch. The main difference between the two is that pull requests are named after the first action that is taken to pull the information from the branch and merge mainly joins 2 or more development instances together. We are using pull request to put our branches onto the GitHub repository, and this is done usually during labs. This is important since it allows us to work on the code without needing to directly impact the rest of the code and only affect the files locally.

* 1. Explain your development workflow. Include how *you* move files from Development, through Staging and Production. (Make sure to mention their locations, locally, and remotely. And include how Git plays a role)

First is creating a new file on the local repo. This is then developed here and then staged by saving the changes. Then they are deployed to GitHub through GitHub desktop where I commit and push the changes I made to my local repo to the GitHub servers. I then start the Azure instance and git pull the files from GitHub into my website.

* 1. What is XML? How is it similar to HTML (and/or XHTML)? How is it different?

XML stands for Extensible Markup Language and it allows us to create custom markup elements. It is like HTML and XHTML as they are XML. XML describes the data that is being stored while HTML is talking about how the data is being displayed to the user.

* 1. Write out (or describe) the commands (or steps) to do the following, in your environments
     1. Bring changes from the main branch of your repo to your server

First SSH into the server then going into the files by using cd /var/www/html/iit then we can run the line sudo -u www-data git pull to pull the data from GitHub

* + 1. Where (what folder) is the homepage of your webserver located?

The iit folder which can be accessed from our terminal with he command cd /var/www/html/iit after ssh into our instance

* + 1. How do you determine your current folder in linux?

Typing pwd shows our directory pointer

* + 1. Explain ‘sudo -u www-data git fetch’?

The git fetch command gets and downloads files from the remote repo into your local one.

1. HTML & CSS (35 points, 40 minutes) In Lab 3, you created a website to host your classwork; specifically, your labs, according to your Information Architecture (IA). Answer the following question referencing (as needed) content and examples from class.
   1. What is relative linking? How do we use it? How does it compare to other types of linking? Why do we use it? Answer in detail below

Relative linking is when a link in a webpage links to a file in the same directory. We use it by using <a href=”someFile.html”>< in the anchor tag.

* 1. What are the minimum tags required for an html file to be considered valid. Write them out below.

<!DOCTYPE html> <html><head><title></title></head><body></body></html>

* 1. Write the CSS to have the first of the following 2 lists display on the same line, and show the list items blue, given the following HTML. Include the selector and CSS below the HTML in this document (DO NOT change the HTML)

<ul id=”myFirstList” class=”myLists”>

<li class=first”>first</li>

<li class=”second”>second</li>

<li class=”third”>third</li>

<li class=”fourth”>fourth</li>

</ul>

<ul class=”myLists”>

<li class=first”>first</li>

<li class=”second”>second</li>

<li class=”third”>third</li>

<li class=”fourth”>fourth</li>

</ul>

<style>

ul{

display: inline-block;

vertical-align: middle;

color:blue

}

</style>

* 1. I want you to add a background image to your page. Write the HTML to include an image named myHeadshot.jpg, with a height of 80 and a width of 90 relative to the parent container (div) which has a width of 100 pixels using relative sizing. (include the HTML below)

<div class="imageDiv">

<img src="myHeadshot.jpg" width="90%" height="100px">

</div>

<style>

.imageDiv{

width: 100px;

}

</style>

* 1. Explain the Box model, and why is it important. Give an example of how you would make sure 3 boxes lines up on a page of 1000 pixel width.

The box model is based on the idea that everything in CSS has a box around it such as a paragraph, div, or an image. Every box is made up of a margin around it, a border, and padding inside. This helps visualize what each of the CSS for it is doing and the amount of space that is given to the object. For a page of 1000 pixel width you would want to keep the margin width a max of 333 for all of the 3 boxes.

1. “Dell” Case (25 points, 20 minutes)
   1. Based on your research and the conversation in class, What is Project Management? Include 2 examples in your answer. Be specific. (15 points)

Project management is the way of initiating, planning, executing and controlling the work of a team to get to an end goal. An example of this is Waterfall. Waterfall is a linear and more phase dependent project management where the phase must fully be completed before moving on. The end goal does not change in Waterfall. Agile is a more flexible and iterative approach to projects as it relies on more incremental delivery and collaboration with the end goal being able to adapt. In the “Dell” case we learned about in class, Larry pushed for the adoption of Flow to improve Dell’s output as they were using Waterfall at the time leading to slow development times and no feedback from other departments.

* 1. How does Flow affect Software Development Productivity? (10 points)

Flow affects Software Development Productivity by allowing continuous delivery and efficiency. The idea of flow comes from lean manufacturing which helps improve software development processes. Flow mainly focuses on the continuous movement of the project and the usage of customer feedback.