Introduction to ITWS

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

Enter your answers directly into this document (unless instructed otherwise)

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

There are multiple questions on this test. Make sure you complete them all.

Make sure your answers use an alternative font and/or color – (not black or red)

Create an issue in GitHub stating that quiz 2 is taking place

Create a branch for this quiz called quiz2 and switch to that branch

Create a folder, somewhere under the root of your website (iit) for this quiz called quiz2

Save this document into that folder as *yourName*-*yourRCSID-F22*Quiz2.docx

Create a readme file in the same folder and discuss any relevant information about the lab.

(Include at least; your GitHub id, Repo name, Azure homepage link, and Discord handle.)

Place all quiz other specific documents (if any) in the same folder

Commit your changes as instructed below and push to GitHub

NOTE: You are not to discuss this quiz with anyone. You are not to reference old (previous semester) submissions for ‘help’ or guidance. You may not solicit or receive help online or in-person. You may reference online resources, and you may use the notes from this class, but all work must be your own and you must figure out the solutions on your own.

1. Technology (coding): (40 points, 30 minutes)
   1. You will be making changes to your websites by adding a login form to your site
2. Make sure you are connecting your html file to jQuery via CDN
3. Add a small form anywhere on your page that has fields for a userid and password and a submit/login button – make this form hidden upon initial page load
4. Add a menu option to your homepage that says ‘Login’
5. When selected, have the form appear.
6. When the user enters a name and password, validate the form
7. DO NOT worry about checking user id and password. Assume any entry other than blanks is correct
8. After submitting the form,
   1. Change the Login item in the menu to Logout
   2. Hide the form
   3. Once, a & b are complete, open a dialog that says, ‘User logged in Successfully’
9. If the user clicks ‘Logout’, replace the Logout with Login as at the beginning
10. Technology (description) (20 points, 15 minutes): Web Development
    1. When initiating a connection between the Client and the Server, what is the first thing that happens? Be Specific and give an example used in class (5 points)

The client sends a request to the server to initiate the three-way handshake.

* 1. We have learned the jQuery function in class. Explain, in detail, what is happening in the following code samples (10 points) {i:2,ii:2,iii:6}
     1. $(document).ready(function() { });
     2. $(“bodyBlock”).html(output);
     3. $.ajax({type:‘GET’,

url:’https://rpi.edu’,

dataType:’html’,

success: function(thePage) {

// do something with thePage

},

error: function(msg) {

// do something with msg

}

});

Step I is an event handler: once the page loads the following code will be executed.

Step II is replacing the inner html of the bodyBlock div and replacing it with whatever is in output.

Step III is accessing data from the server “behind the scenes” and if it successfully accesses it, does something with this data, otherwise it outputs an error message.

* 1. Let’s say that I am trying to run my JavaScript code above, and the file is not loading. How would I test out my code and try and identify the error. (Be specific and explain your debugging process) (5 points)

In VSCode, open live preview and go to your chrome developers tools. From here, you can use the source tab to set breakpoints and use other methods to debug your code, and you should now be able to see your file whereas you could not see it in your browser.

1. Web Science (20 points, 15 min) (Explain in detail)
   1. According to the Lecture by Dr. Erickson, what is Web Science? Why is it important?

According to Dr. Erickson, web science is about how humans use the web and interact with it. It is important because this is something we are doing constantly in our everyday lives, from using our emails to accessing our social media, or anything else that might require the transfer of information.

* 1. How does web science complicate our daily lives – be descriptive and include an example from your own personal experience

Poor user interface design can complicate our daily lives. For example, the rpi sis design is pretty archaic and not necessarily very intuitive, and is thus difficult for students to navigate and find the information they need readily. This can be extremely tedious and frustrating, especially when trying to do important or time senstive tasks like registering for class or finding a bill.

* 1. How would you apply the concepts from your definition in a, to help with the problem you described in b?

Ideally by changing the interface design and website architecture. Improving the layout of the home page so it is easier to understand what each menu item is taking you to, maybe adding a search function to make it easy to find what you are looking for right away, or just making the site generally more logical are all ways to improve the usability.

1. Cybersecurity (20 points, 10 minutes) (Explain in detail)
   1. According to the lecture, what is the biggest threat when it comes to cybersecurity? Why?

Humans and human error are the biggest threat to cybersecurity. There are certain things that are out of our control as developers, and hackers only need one point of weakness in order to breach something. Usually this will be a result of human error, victimization, weak passwords, poor sys-admining, ect.

* 1. What is the CIA? How is it related to cybersecurity?

Confidentiality, integrity and availability. There are certain things or data that only you or certain people you have granted access to should be able to use, manipulate or see.

* 1. What is are SSH keys and how do they work? How have we used them in this class beyond this cybersecurity lecture?

SSH