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 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-F23*Quiz2.docx

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

(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

DO NOT create a pull request or merge your changes into Production

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. Note that content simply lifted from the results of a search and put as your answer is plagiarism – Answer in your own words in order to demonstrate your understanding of your question, and your answer.

1. Technology (coding): (40 points, 30 minutes)
   1. Create a JSON file named quiz2.json, which will contain a list of songs. Make sure to include the title, artist, album name, (link to) cover art, and the copyright year). NOTE: the data does not need to me real – so don’t waste time looking up real sources. Make sure your data is formatted correctly and contains at least 3 songs. (10 points)

* 1. Create a quiz2.js file, and using JavaScript and/or jQuery, write the code necessary to display a random song which you will read from your JSON file and display somewhere in your header. Assume your file data is already contained in a variable named musicList (similar to the inclass exercises) (20 points)
  2. What does $.on() do? Explain, in your own words, how and where we used it class. Also explain how it is useful, and why we need/don’t need it. (10 points)

The jQuery $.on() method attaches an event handler to the element that is currently selected. We used it in lab6 to attach an onclick function to a button to toggle a textbox. It is useful because we can use it to make our web applications interactive and dynamic. We don’t need it if we use vanilla JavaScript to do the same thing.

1. Technology (description) (30 points, 20 minutes): Web Development
   1. What is a CDN and how do we use them in this class? Be Specific and give an example used in class (5 points)

A CDN or content delivery network is a group of servers that caches content geographically close to end-users. They allow for quick transfer of assets to load internet content. I used CDNS in this class to load custom fonts onto my personal website.

* 1. Explain, in explicit detail, what is happening in the following code samples. (20 points)
     1. <html>

<head>

</head>

<body>

<h1 class=”mainHead hdr” id=”top”>My Site</h1>

<button type=”button” onclick=”pop();”></button>

<a href=”#top” class=”linktype”>Where am I</a>

</body>

</html>

This improper html document produces a document that has a header with the text: “My Site”. Below there is a button and link right next to the button with the text “Where am I”. When the link is clicked the browser will navigate to the #top section of the document which is exactly the same as before. When the button is clicked, nothing will change on the page, but in the browser developer tools console “Uncaught ReferenceError: pop is not defined” will be outputted. This is because ”pop();” IS undefined and thus does not do anything.

* + 1. getElementsByTagName(p);

This JavaScript code will go through the DOM and return an array of elements by the provided tag name. In this case all <p> elements will be returned as an object that can be further manipulated with JavaScript

* + 1. .contactInfo {height:50px;width:120px;float:right;clear:right}

This line is CSS that styles any element with a class name of “.contactInfo”. It gives the element a height of 50 pixels, a width of 120 pixels, pushes the element over as far right on the page as it can go (because of “float: right”). It will also be moved below any elements that precede it (because of “clear: right”).

* + 1. $(document).ready(function () {

let age=50;

let insuranceCutOffAge=60;

if (age<insuranceCutOffAge) {

alert(‘yep’);

} else {

alert(‘nope’);

}

});

This jQuery code first detects if the state of the document is “ready” to be safely manipulated with JavaScript. The code within .ready() will run once the DOM is ready for JavaScript to be executed.

Then an alert of “yep” will pop up on the browser since 60 is greater than 50.

* 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)

First I would put a console.log() statement before and within the ready function. I would then open chrome developer tools console on the page and If nothing is printed that means that the JavaScript file is likely not being run. This would then lead me to believe that the JavaScript file was not being included properly and I would adjust my index.html script include path accordingly.

Chrome dev tools could also reveal an error in the code and if so I would fix that error in the code.

1. Web Science (10 points, 15 min) (Explain in detail)
   1. According to the Lecture by Dr. Erickson, what is Web Science? Why is it important?

According to the lecture by Dr. Erikson, Web Science is the study of the World Wide Web as its own subject of science. It is important because the internet is a disruptive and transformative technology, but what might not be so clear are the vast implications that such a digitally interconnected world will have on our culture and society. Therefore, the study of Web Science is highly important.

* 1. How could Web Science concepts (from your answer to a) be used to help identify and perhaps create awareness around some world problem (pick your problem – poverty, health, whatever you choose)

Web science concepts, specifically its interdisciplinary nature with sociology, can help identify problems like growing radicalization, online echo chamber’s and increasing mental health issues such as loneliness and isolation that are growing in prevalence in our society because of the proliferation of the internet. Web science can identify the problem down to its technical details; once the problem is understood, research in web science could potentially offer solutions to make the web better and help real people.

1. HCI (20 points, 10 minutes) (Explain in detail)
   1. According to the lecture, what are the two main principles in interface design? How are they used, and why are they so popular?

The first main principle of interface design is that the usage of a computer to aid in one’s work, will not bring any harm to that work.

The second main principle of interface design is that the usage of a computer in doing one’s work will not waste one’s time or require doing more work than is strictly necessary.

These principles are used to guide the making of user interfaces that are easy and intuitive to use, and that is why they are popular.

* 1. What is a user persona? Why do we use them? How do we develop them?

A user persona is a fictional character that is meant to be one of your applications target users. We use them to tailor the user experience of our application to whichever segment of the population we are targeting with our personas. This process is done to improve the user experience for the end users by taking the time to consider their needs and usage of whatever application is under development.

We develop personas by first brainstorming the types of people that would use are app. Then we go into specific detail about them, including their name, age, occupation and interests.

* 1. Explain how these concepts have or are informing your plans for your group project.

The process of persona creation has extremely beneficial for my group project’s plans. For example, our persona of “productivity guru” has lead us to add features to our app that would promote more customization and organization that what is on the market currently. This is something we may not have thought about since our app was originally tailored for just music enthusiasts. The process of persona creation will make our app more useful for more people.