Introduction to IT: ITWS 1100

Take Home Final Quiz: Due December 6th, 11:59:59pm

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

Enter your answers for Q 2 & 3 directly into this document (unless instructed otherwise)

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

Make sure your answers use an alternative font and/or color – (not red, and not Comic Sans, etc.)

Create a development branch for this quiz. Tag it properly.

Place all documents including this one in a folder ***inside*** your iit folder named:

Quiz3

Save this document as:

ITWS1100-F24-Quiz3-*yourRCSID*-*yourname*.docx

Make sure you extract your SQL database (include the CREATE statement) – save the output as *yourRCSID-website.sql.* Place it in your Quiz3 folder

When finished with the quiz, zip your entire iit folder and all related files into a file named:

ITWS1100-F24-Quiz3-*yourRCSID*-*yourname*.zip

And submit it to LMS

Move your changes into production and deploy

Do not forget your read me

Remember to save as you go,

Good luck!

1. HTML, CSS, JavaScript, jQuery, PHP, and then some … (70 Points)

In lab 3 you built a simple website using (primarily) static HTML. In Lab 8 you modified your projects page to read from a JSON file using jQuery and AJAX.

Now we are going to repurpose our websites again. We are going to refactor our sites to be built using data from MySQL (MariaDB), using PHP.

* + Create an external required PHP file named conn.php which will set up global variables for user, password, database and server for your mySQLi API connection.
  + Using includes, refactor your main site template (ie Header, and Menu) similar in code structure to the lab 9 example.
  + Using the includes from above, make a new index.php file to replace your index.html file from your site’s root. When served, index.php should look like your index.html used to look. (remember to archive or delete your index.html file)
  + Databases: create a database in your MariaDB (MySQL) server named, ‘mySite’
    - In this database,
      * create a table named ‘myLabs’
      * create a table named ‘myProjects’
      * create a table named ‘myFooter’
      * create a table named ‘mySiteUsers’
    - Make sure you have a unique, primary key, that is automatically set that is 2 bytes in length in each table.
    - Create the fields necessary to store the data needed for your site.
  + Replace your labs/projects html page (or menu info) with a new php file which will be built dynamically by reading the necessary data from the myLabs table.
  + Add a new page for your projects (minimum 1 for your group project) which should also be accessible from your menus on all pages. It should use an relative link to your team project’s main page which at this point should also be located on your server(i.e. xx/xx/xx/groupX/
  + Login
    - Add a login button/link/menuitem or form fields, etc to your main page
    - Add the functionality to allow a user to enter a user ID and password. The user, PW, user name, and user type (user or admin) must exist in the mySiteUsers table. Nothing fancy here: They may be in plain text.

Make sure that

* + - * if the user validates
        + add text with their name to your site. (i.e. Welcome XXXX!)
        + Replace the login option with logout (when clicked, the user should be logged out and the site should return to normal
      * If the user validates and is an admin, add an option to the labs menu to add/delete lab entries.
      * If the user does not validate, return with an error
  + Form for new lab entries
    - If the user is authorized and selects the add/delete lab entries, bring up a form that allows for new entries to be made, and lists out all entries. Allow delete as well (this should look/work similar to the movies/actors programs.
  + Note: When completed your index.html and projects.html (or labs.html, etc.) from labs 3 & 9 will no longer exist. They will be replaced with two new php files, each in their appropriate folder so that when a user goes to yourFQDN/iit the index.php file will be served by default. This will be the new homepage for your website.

Document your code and include a readme with an explicit discussion of your IA and the logic contained throughout your site.

The site should be fully functional. DO NOT relocate all your other lab files. Reference them where they currently exist within your iit folder.

1. Cardinal Health & Generative AI: (30 points)
   1. From the case and your research, how is/was Blockchain a transformative technology for Health Care? What is it about Blockchain that is so appealing? Is the hype justified? Why or why not? (min 250 words - 15 points)

Blockchain is a decentralized, distributed database that allows users to engage with a transparent platform that ensures valid transactions. Blockchain is a transformative technology for Health care because it solves several of its industry supply issues. Blockchain verifies purchases and tracks products as they move through production which not only resolves chargebacks but also aids in removing illegal drug production. These processes are so appealing to healthcare because having a “single version of the truth” versus several different accounts from different companies reduces disputes and eliminates the need for intermediaries: the algorithm becomes the arbitrator and thus unbiased. Despite the technology behind Blockchain being slightly rudimentary as it requires immense amounts of energy, in the case of Healthcare’s homogeneous distribution, Blockchain offers great advantages such as faster, secure transactions, dispute resolutions, and a reduction in serving costs. Blockchain has the potential to revolutionize the Healthcare world by streamlining the supply chain and getting verifiable medications to consumers quickly. In order to reach this potential, however, supply companies must collaborate on a singular platform, working together to achieve a ensure a complete view of pharmaceutical production. This allows for a wholistic view of a certain products path through production, easing both consumer and company complaints while reducing the entry of counterfeit drugs. If each company has their own version of blockchain and doesn’t interact with the other companies, it defeats the entire purpose of one, decentralized platform that all users can access. In conclusion, Blockchain may transform the Health care industry by introducing a peer-to-peer, authenticated, and transparent platform that allows individuals to validify their purchases and improve transaction efficiency.

* 1. From the case and your research, what is Generative AI? How did it impact your understanding of the case? How did it change your understanding of GAI? Be specific and include personal observations. (min 250 words - 15 points)

Generative AI is an artificial intelligence tool that generates responses in human diction based on the amount, quantity, and quality of data its given. We used generative AI to compare the validity and quality of our answers. We found that AI was only useful in certain situations while essentially useless in others. AI is useful in answering very general and broad questions, ones that could easily be validated by a Google search. The danger in these prompts, however, is if you are completely new to a concept, solely using AI tools can lead to inaccurate information and false understanding. One of the most crucial components to the accuracy of an AI tool is the data it’s given. Even with the large amounts of data that popular tools like ChatGPT and Gemini use, the overall quality of data is mostly false. At this point, AI technology can only reiterate and summarize the information it’s given: if most of the information on the internet is false, then most of the information AI relays will be false. Additionally, the prompts given to the AI tool are almost as, if not more, important than the actual data itself. AI tools were more consistent and accurate with broader questions because they had more information to summarize; with specific prompts, however, most AI tools simply summarized the prompt and often displayed completely inaccurate information. Depending on the AI tool’s ethical procedures, some tools like Gemini were blocked behind paywalls and could not provide information behind certain restrictions like logins and paywalls. Thus, we found that AI was a great collaborative tool for ideas and summaries, but manual analysis still ranks superior in terms of quality.