Introduction to ITWS

Quiz 1: February 14, 2022

1. Network protocols, HTML & WWW : (20 points, 10-20 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)

VPN stands for virtual private network, which can change a user’s original real IP address to the remote VPN host’s address.

I used VPN in China to access foreign websites like Youtube and Instagram instead of being intercepted by the wall. By buying certain software, it can change my device’s IP address to other countries that do not have walls. The software would automatically judge which server’s traffic is the fastest and connect my device to that server.

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

The protocol is a set of rules that Internet pioneers designed to encrypt, decrypt, and format the data, in order to deliver information faster and browse information easily and clearly.

Examples are HTTP, TCP, IP, and Ethernet. We found these instances by looking at the layers one by one and introduce their purpose and their work by giving those examples.

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

OSI stack is a conceptual model which is to classify layers by characterizing and standardizing the communication functions.

The IP is one of the protocols in the OSI stacks, to be more specific, it is in the network layer. It indicates the data’s online address

* 1. What is the difference between TCP and UDP? Explain in detail how/why/where they are used and give examples (5 points)

TCP is Transmission Control Protocol, which is designed for the long stable connections for data to transport completely instead of lacking something or messing up after the transportation. It would memorize the data’s original order. Nowadays almost every data transportation is using TCP protocol like HTTP because of its reliability.

On the other hand, UDP is User Datagram Protocol, which is a short time and a short distance connectionless protocol. It can deliver information faster since it cannot reorder the data afterward and it cannot re-transport the missing data. The best and the only example I know for UDP applications is NTP.

1. HTML & CSS (60 points, 40 minutes) In Lab 3, you created a website to host your classwork; specifically, your labs, according to your Information Architecture (IA). You are now going to build a template for showing the lab instructions in your individual styles.

As instructed above, make sure you have the appropriate files in your quiz folder. You will be working primarily on the quiz1.html and related files for this question

* 1. Modify the file to look consistent with your site by linking it to a new CSS file (which you must create) named *yourRCSid-s22*Quiz1.css and place it in the same resources folder as your personal website’s CSS file (Hint: you will likely have 2 CSS files linked in your html file)
  2. Add at least 1 new external font from Google Fonts to the page
  3. Add readme.md or readme.txt file to your quiz folder. Put anything into it that you’d like us to know about your strategy for this question – if there is nothing, it may be empty, but it must be included. (Hint: partial credit can be your friend)
  4. When done, commit your code and push it to your GitHub account.

(NOTE: Do NOT merge the branch back to main or you will receive no credit)

* + 1. You may edit the HTML as you will – the local file links have been removed for clarity.
    2. (Hint: if you have not added us as contributors, then this is your last chance. To receive credit for this question, we will be looking at your commits and comparing the versions – if we cannot see your repo, you will not receive credit for this question)

1. “Ford” Case (20 points, 20 minutes)  
   1. From the case, the discussion in class, on Discord, and what you have learned since: In your opinion, has Ford continued to follow the strategy outlined in the case? Explain how or how not. (10 points)

According to the report, Ford continued to develop the autonomous trucks afterward and they actually released a version about 2021. But unlike its original startegy that developing fully autonomous trucks, this product has some obvious shortcomings. It did not save people's costs. It still needs a driver to sit inside and watch supervise its work.

* 1. Based on the conversation in class, did you change your opinion? Why or why not? Be specific. (15 points)

I did not change my mind. My answer is still no. As I mentioned in case 1, the autonomous transportation technology conflicts with F-series customers’ requirements. What these consumers really want is a truck that has a strong, tough figure without any flush decorations. We can see this from the fact that after Ford released its new product when you google Ford F-150 auto, the first result showed is how to close the auto-drive function.

More than that, the purpose of people buying this car is not for business use but for daily use like traveling or shopping. In this case, positioning this product as a tool for commercial use is not an appropriate decision.

It is true that auto-drive is a future trend and starting early has its own benefits. We can see the benefits from the slogan and the relative reports that Ford has the first autonomous truck, which is very attractive. However, instead of advertising its commercial use for shipping market goods, improving the collaboration between AI and driver is a better choice as I mentioned above.