Criterion A: Planning

Defining the problem

The client, Mr. X, owns a restaurant. During the COVID-19 pandemic, physical menus were replaced by online menus accessed through mobile devices to comply with health restrictions. However, after the restrictions were lifted, the online menus were discontinued due to the numerous complaints from customers who preferred physical menus.

Mr. X wants to switch to digital menus because they are easier to update. With physical menus, he would have to print out new ones every time he wanted to make a change, such as updating prices or adding new dishes. With an online menu, he can make changes instantly without the inconvenience and expense of printing new menus.

As per the transcript in the appendix, Mr. X found that the most common complaint included its awkward design, as the menu was in the form of a static PDF in which they had to zoom in to read the individual items. This design also lacked visual appeal.

With the approval of my Computer Science teacher, I decided to help Mr. X by creating an improved online menu. Using the app designs of UberEats and DoorDash, I determined several qualities of successful online menus to be filling the screen entirely with only one item at a time, a scroll feature to navigate through items, and simple animations to maintain aesthetic appeal. My solution was to create a program in which Mr. X can edit and update his menu, with the end format having the above qualities.

After presenting my proposal to Mr. X, he was pleased with the solution and gave me the go-ahead to create the improved online menu for his restaurant.

Rationale for the proposed solution

My solution to Mr. X's problem is to change his online menu to a custom webpage. I will do this through the Bootstrap framework as it allows for the creation of responsive and aesthetically pleasing web pages through preset templates that use HTML, CSS and Javascript. The resulting webpage will be easy for customers to access on their mobile devices and be visually appealing, addressing those corresponding problems of the original menu.

To make it easy for Mr. X to update the menu, I will also create a program with a GUI that allows him to edit the HTML file of the webpage. This will enable him to make changes to the menu quickly and easily, without any technical knowledge or expertise. This will address the problem of Mr. X finding it costly and time-consuming to make changes to his menu.

The data for the menu will be inputted into the GUI by Mr. X, and will include the name, description, and price of each item on the menu. Additionally, he will be able to categorize each item and upload a photo of the item.

To ensure the security of the program, I will use encryption to protect the data, and I will implement access controls to prevent unauthorized access to the program.

Words: 484

Stating success criteria

- The program should have a top navigation bar with 2 drop downs, one to open a previously made menu and one to save the current menu
- The 'open' option will bring up a file selector to choose a previously saved file containing the menu details
- Once opened, the user should be able to edit the preexisting menu
- The 'save' option will save the current menu to a file where the client chooses
- The 'save' option will also create a new html file with the menu
- The top navigation bar will also include a button called 'help' to instruct the user on how the application works
- Client can create categories by filling out a textfield with the categories name and hitting the 'add' button
- The program will reflect the new category by updating the category select dropdown and updating the current menu list.
- Client can create new menu items, with variables such as 'name', 'description', 'price', 'picture' and 'category'.
- The program will reflect the new menu item by updating the current menu list.
- The current menu list will automatically group the menu items under their corresponding category
- Client can reorder the current menu items using the 'move up' or 'move down' buttons
- Info messages will appear on the screen in the case of data-entry errors.
- The program will edit the html file to accurately display the menu