Criterion A

Thursday, March 23, 2023 11:46 AM

Criterion A: Planning

1. **Defining the problem**

The client for my project is a member of the United States Marine Corps who is learning to become a naval aviator. The end-users of the final product include my brother, his friends, and my dad who will need to record the data from their flights as pilots.

My client utilizes a tracking system provided by the government and hand written notes to help keep track of his flight data and time. However, he has expressed concerns and identified some problems with this system:

a. It can be "clunky" and difficult to navigate the user interface
b. It is often down due to the outdated technology from the government
c. In order for him to make sure his data isn't lost when the system crashes or shuts down, he keeps manual logs in a notebook

After discussing my clients concerns and hopes, we came to an agreement to develop a product and software which will increase the ease, accessibility, and usability of logging civilian and military flight hours. The product will be presented as a web application and the client will fully test it to confirm its utility and that it has met all of his criteria for success.

2. **Rationale for Proposed Solution**

Having discussed and agreed with my client, we have come to an agreement to produce a reliable web application in order to make logging flight hours much more reliable and easy to do. End-users will be able to easily navigate this product on any device enhancing the accessibility and usability of this system. Most people living in the United States today have access to and know how to easily navigate a device making a web application the most suitable option for enhancing accessibility and usability. Also, the use of a reliable database will ensure that data isn't lost in the process making a physical logbook unnecessary. Therefore, this product increases the ease of navigation and accessibility for end-users.

The following primary reasons show why I chose JavaScript as the programming language to develop this web application and system:

a. **Ease of Use:** JavaScript is one of the easiest languages to learn, particularly for web programming. Seeing as don't know any good languages for web programming, it would be nice to have one that is easy understand and use like JavaScript.
b. **Access to Powerful Frameworks:** The many frameworks that display ready-to-use codes are a key advantage for JavaScript as they make developing and programming much more efficient. Not having to focus on trivial, smaller tasks as much, a developer like me can put more time and effort into things like client data security and safety.
c. **Independent Platform:** JavaScript is supported by most browsers, making a web app designed in JavaScript much more accessible for a client. Since you won't need to go through any installation or setup if your browser supports JavaScript, it becomes a readily and easily available piece of technology.

Although I am only proficient in Python and Java, I hope to learn and be able to effectively utilize JavaScript to its full potential.

3. Criteria for Success: The following objectives must be achieved by the proposed system

Input/Output Objectives:

The following success criteria were suggested to the client, who subsequently agreed to their suitability. The system should give access to the client to perform the following:

1. After inputting data charts are refreshed automatically
2. Input data into a table of flight information with several different input variables
3. Save the data entered into the table onto a database
4. Present a summary of flight hours including things like "Total Flight Hours", "Days Since Last Flight", and "Days Since First Flight"
5. Change the visibility settings
6. Add rows of flights
7. Edit rows of flights
8. Delete rows of flights
9. Sort the last ten flights visually by date
10. Clients are able to register
11. Clients are able to login
12. Exit program without losing data