Criterion A: Planning

Defining the problem

Client, Mrs. Joumala Ababou, is the president of a non-governmental organization in Morocco called '**Fondation Ababou**'. Mrs. Joumala Ababou wants to offer young people the opportunity to learn a new language, English. She wants to start by first covering the basics of English, including grammar rules, recognizing images and naming them, being able to interpret a sentence in English and explain what the phrase said, etc. It is easy to find online courses that would allow individuals to learn a new language, however, Mrs. Ababou doesn't believe that any of the courses are captivating enough to keep the children motivated to learn.

In June 2019, I attended a business meeting to which the President of Foundation Ababou, my client, was present. She explained how she wanted to expand her business and help children who do not have access to private education. On top of providing core education, such as math, French, and Arabic, she believed that the children must learn a second-hand language, to improve their communication and social skills in other countries. I decided to take the matter in hand and volunteered to fulfill her request.

Rationale for proposed solution

After consulting with my client, I suggested developing a language-learning iOS application allowing French speakers to learn the basics of English through various games and exercises. After evaluating the product, my client was intrigued by my suggestion, however, suggested that building a web-application rather than an iOS application will allow more users to access the product through various kinds of devices. After coming to an agreement, my client provided me a legal certificate requesting that I develop a language-learning application to help young French speakers learn English *(See Appendix A)*.

I decided that developing a web application using HTML, CSS, JavaScript, and PHP, would be the best way to resolve Mrs. Ababou's issue because of the complexity of the problem. Through the use of PHP, I will connect the program with a MySQL database, which will be used as the backend storage for my website, allowing the program to store users, monitoring their progress throughout the course, and customize their own exercises.

Starting Success Criteria

1. The program will allow the client to add exercises, change/edit questions, and delete questions or exercises that do not meet their requirements.

2. The program will allow users to register/login to an account, storing their username, password, and high scores for every game.

   a. The website's main features will not appear until the user is logged in or registered.

3. The program will allow users to recover their password, in case they forget it.

4. The program will send a welcome email to every new user that registers.

5. The program will allow users to send their feedback and comments about the product to the client.

6. The program will have a functioning score system that adds a point to the user's high score while playing the game.

7. A timer of 20 seconds will be set for every question on each game. If the user surpasses the time limit, the user will proceed to the next question and will lose a point.

Words ~ 349 words