Criterion A: Planning

Part 1

Defining the Solution

The client is very indecisive as to where to go for university and is looking for a solution to help them decide. They know that they want to go into the STEM field, but they are unsure as to which field they are the most interested in and there is a lot of conflicting information as to what the top universities for each STEM field are. Currently they are using the resources provided by their school to do research about universities, such as Unifrog, but they have a lot of complaints about it such as it is very disorganized and doesn't really help narrow down their choices.

Part 2

Rationale for the Solution

After consulting with the client, I suggested that a website with the average rankings of the universities as well as a discovery page for each subject be created, to help them narrow down their choice of STEM field and university. The average rankings section will use a python web scraper, specifically beautiful soup, to scrape the top 150 universities from the three most reputable university rankings, Times Higher Education, Quacquarelli Symonds, and the Academic Ranking of World Universities. The discovery section will be broken up into multiple sections, one section that displays all the universities that the user can apply to based on their grades, another that determines what STEM field the user should go into based on a series of questions regarding their choice of subjects and personal preferences and another section that simply advertises each STEM field for the user to decide for themselves based on what they read.

The website will be broken down into two parts a back end and a front-end. The back end will be made using python and will handle all the web scraping and data processing. I have chosen python as I am already familiar with it. I also think it is a good fit for this project due to how versatile it is as if I choose to innovate this project in any way it will be easy to do so. For the front-end, I have chosen to use HTML and CSS as they are easy to work with.

Part 3

Success Criteria

1. Clients and admins can login with existing accounts

2. Clients can create accounts themselves

3. Users can

4. User inputs are validated.

Words: 396