Design Sprint 1

Our website, as discussed in our group document, is called “PathFinder”.

Below are group-made personas used to generate scenarios and user stories.

User stories based on the above personas:

User story 1:

An 18-year-old graduates high school and is interested in becoming an airline pilot. He is not sure what the requirements of this job are and is interested in learning more about them. He inquires if there is one entity that can give him a direct answer to his primary question: “what are the requirements for becoming an airline pilot?”

User story 2:

A 19-year-old freshman is in her second semester at college and is undecided in terms of her major. She has interests pertaining to molecular biology as well as analysis of data associated with genetics in the context of evolution. She wishes to determine what jobs exist that involve the explicit analysis of biological data in order to determine evolutionary history in numerous contexts.

User story 3:

A 21-year-old junior in college is majoring in Computer Science and wishes to gain more work-based experience in the field of computer science; his experience so far is mostly academic-related. Summarily, he wishes to complete an internship over the summer after his junior year ends, and has yet to search for openings. He wishes to determine what the general requirements are for computer science-based internships.

Possible Scenarios that may arise as a Result of the Above User Stories taking place

Scenario for User story 1:

This student researches the requirements for becoming an airline pilot on an aviation-related website. On the website, he witnesses an advertisement for PathFinder in a sidebar. He inquires about PathFinder on the "About" page of its website and realizes that its purpose is to assist students looking for certain jobs determine what requirements they should fulfill. He inputs his education level (a high school graduate) and the website indicates what he should do to optimize his chances of being an airline pilot in the future. Ideally, the website will suggest that the student obtain at least a bachelor's degree in an aerospace-related field (e.g. aerospace engineering), or failing that any STEM related field. The website will also suggest popular higher education institutions that offer such majors based on users' locations. This will require that users be able to input their locations. In this scenario, the student will, based on his location, have universities in or near his province/state suggested to him. The student will then deem the website to be useful as he now knows what must be done to become an airline.

Scenario for User story 2:

This student searches for jobs that include her criteria of the analysis of biological data in accordance with evolutionary history and finds openings in numerous companies for "Bioinformatics Scientists". Continuing her research, she comes to know of PathFinder by word of mouth. She inputs "bioinformatics scientist" as well as her current status as an undecided student as well as her current university. The website will then output the requirements for bioinformatics scientist positions, them being a master's degree as well as required work experiences for such positions. The website also outputs information indicating that the university she is at offers master's degrees in bioinformatics. The student proceeds to determine that, at her university, she should major in computer science with concentration in bioinformatics and inquire with various professors to determine if they have laboratories open for undergraduate students to work in (this will supplement her with work experiences required for being a bioinformatics scientist). Because PathFinder helped her determine the requirements for becoming a bioinformatics scientist , the student asserts that the website is beneficial.

Scenario for User story 3:

This student is different than the aforementioned students: he has not found a "dream job" but is interested in the specific requirements for a group of jobs related to computer science. This student will figure out about PathFinder when searching for internships on a job-seeking website via an advertisement. He will input his university-related status and then his intent to seek internships only related to computer science. As this field is relatively popular, the website will be able to output common requirements for computer science-based internships, such as general experience programming in at least one programming language (this student has such experience programming in an academic context). The student then determines he is qualified for computer science based internships and is now confident in knowing the requirements for the aforementioned internships.

Possible Features based on the Aforementioned Possible Scenarios

In the scenario for user 1, the student was made to input their location so the website could recommend universities within that user's area. A feature for locations should be implemented for this to be possible. In the scenario for user 2, PathFinder displays information in accordance with a university; it is clear that the website should rely on a database feature containing information pertaining to job requirements and entities with the capabilities of fulfilling those requirements. In the scenario for user 3, the user determines requirements for a group of popular jobs, so in the context of popular jobs, the website should have a second database feature containing information relating to popular job groups.

The current feature list is:

- Location input
    - This will initially start as selecting a region within the U.S.
    - As development continues after PathFinder is released to the public, users will be able to select their exact location from a map
    - The user, at some point, may be able to specify a certain radius for any possible educational/training recommendations
- Database for job requirements
    - This is likely the most important feature for PathFinder. The target user for this website is one looking for a specific job, and as such the website must have access to information regarding the requirements for many jobs
    - The database itself will have to be maintained continuously
    - The database will contain at least the following: job requirements regarding education, job requirements regarding work experience
    - It may be possible, in future development, to turn this feature into a web crawler-like program which, based on user input searches the internet for requirements pertaining to the users' desired jobs as well as their input locations, education levels, and work experiences
- Secondary database for general requirements for job groups
    - Although the target user is one looking for a specific job, a long term goal would be to target users interested in general requirements for popular jobs
    - The aforementioned popular jobs can be grouped based on type (e.g. computer science jobs, engineering jobs, research jobs, etc)
    - This database will be different from the previous database containing job requirements: as its description entails, it will contain requirements not for specific jobs, for groups of jobs
    - It will likely have to be made aware to users that this feature may not display requirements representative of all jobs within the popular field the users themselves specified (e.g. computer science jobs may require at least a bachelor's degree, but the website, using the database for job requirements, may suggest a computer science job requiring a master's degree)