Criterion A: Planning

Defining the problem

While talking to my friend from Albania that had just graduated from high school, he asked me for help in finding opportunities for engagement during summer or afterwards. He wasn't sure if he wanted to take a gap year or go to university, however it was not easy for him to find information or opportunities to apply to. This issue often came up in many discussions with my friends that were graduating or already in university, so I decided to help my friend and create a program where he could search for jobs, internships, scholarships, volunteering opportunities and so on. These opportunities would be posted by different organizations. Moreover, organizations would have access to this program and add or delete opportunities for students.

Through discussing the issue in our first interview, my client required to have the possibility to see the contacts of the users that posted the opportunities and be able to save them. He also required to select opportunities from the program and add them in a personal list where they could add or delete the items. This required a database where all these opportunities would be added at for the users to access.

Rationale for solution

To solve my friend's problem, I will create a program in JAVA that connects to a SQL database. I decided to use JAVA programming language because I will be using many classes that have to be connected to one another, and JAVA gives me that ability to do that through inheritance. JAVA also runs in different operating systems, so it would not be a problem if the users are using different OS in their computers. It is dedicated to be a software program that can be used in any computer. This program could also be used by other users and not be limited only to my friend.

One of the most important parts of my program is the UI. I will program in NetBeans 8.2 which automatically creates the code for graphic elements, so I will mostly focus in programming events and functions. I will create a database in SQLite to keep track of the usernames and passwords of the users, and the opportunities' details. SQLite is an open source programming language for managing databases and tables, which helps me in storing all the information on users and opportunities. To manage these tables I will be using a program called SQLiteManager, where I can edit, add or delete tables.

Success criteria

- The user will successfully be able to log in if the username and password are correct, otherwise, error messages appear.
- Users can create an account an login successfully afterwards.
- The information is saved after the user logs out from the program and logs in afterwards.
- The table of opportunities appears in the Browse section of the program.
- After the selection of one item of the table, a frame with more details appears.
- The users can add opportunities to the MyOpportunities tab table by choice.
- Users can add other users as their contacts.
- The users will be able to successfully log out with all the data in their profile being saved.
- Successfully developing a connection with the database.

Word count: 525