CmpE 150 Introduction to Computing, Fall 2017
Project 2—Due:20/11/2017, 9am

You are the human resources director of a company called MARS and you are interviewing people for various open positions. Specifically, you need to hire one software engineer, one accountant, and one academic. Anyone filling these roles should be 18 or older. If the person is male, he must have completed his military service. For each specific role, you have specific requirements.

- Software Engineer: Must hold a university degree in computer engineering, software engineering, or computer science. Must know how to program in more than two languages (e.g., C, Java). Must either have more than three years of experience as a software engineer or a graduate degree in software engineering.

- Accountant: Must hold an accounting degree. Must know Excel well. Must either speak fluent English or have a friend who can translate for him. Must know at least two people who are already working in the company. Must have a driving license.

- Academic: Must speak English. Must have published at least three papers. Must love to teach.

You will write a Java program to help with the above process. Two possible executions of your program is as follows (user input underlined). Feel free to make the user interface more friendly!

Welcome to MARS Interviewing Systems
Can I learn your name?Pinar
Hello Pinar. How old are you?48
For which position are you applying?Software Engineer
Great. Do you have a university degree?Yes
In which field?Computer Science
Do you know how to program in Java?Yes
Do you know how to program in C?No
Do you know how to program in Prolog?Yes
Awesome. Have you worked as a software engineer before?No
Do you have a graduate degree in software engineering?Yes
Are you a male?No
Congratulations Pinar! You got the job!

Welcome to MARS Interviewing Systems
Can I learn your name?Deniz
Hello Deniz. How old are you?28
For which position are you applying?Software Engineer
Great. Do you have a university degree?Yes
In which field?Computer Engineering
Do you know how to program in Java?Yes
Do you know how to program in C?No
Do you know how to program in Prolog?No
Sorry Deniz. You should know at least two programming languages for this job.

Submission: You will submit a project report and your code over Moodle.

1. Your program should have at least two static methods in addition to your main method. At least two methods should be returning information back to its caller method.

2. You are not allowed to use statements that we haven't learned in class as of 7/11/17 (such as arrays).

Project report should consist of five sections. These are:

1. Problem Description: In this section, you should describe the problem in your words.

2. Problem Solution: In this section, you should specify the concepts (methods, for loop, if, etc.) that you use in your program. Explain each one (i.e. why you need it, what you accomplish by using it, so on.). You can give a flow chart here to explain your if statements better.

3. Implementation: This section will include your whole code with comments. You need to pay attention to indentation in order to improve readability.

   - Do not forget to explain each variable that you use (i.e. int count=0; // count is the number of items).
   - Before each method, specify what the method does (i.e. /* This method . */)

4. Output of the program: A screen-shot of your program output should be put in this section.

5. Conclusion: You should evaluate your work here. State whether you have solved the problem correctly. If not, state what is missing, what could have been improved, and so on.

Your .java file should be named with your initials and your student number together (e.g., OS2013800027). You will submit these over Moodle as a single zip file where the file name is your student number. Your zip file should consist of your .java file and your report in .doc or .pdf format.

Partial Submission: If you cannot generate the picture above, you should still submit your code as well as your report. Try to generate most of the picture. In your report, explain which parts you can generate and which parts you cannot.

Late Submission: Any submission after the deadline is considered late and will not be accepted.