Seneca College
Applied Arts & Technology
SCHOOL OF COMPUTER STUDIES

JAC444 **Submission date:** **March 15, 2023**

Workshop 6

Description:
The following workshop lets you practice basic java coding techniques, creating classes, methods, using arrays, inheritance, polymorphism, Exceptional Handling, Java I/O, JavaFx.

Task - 1

The details for the task are as follows,

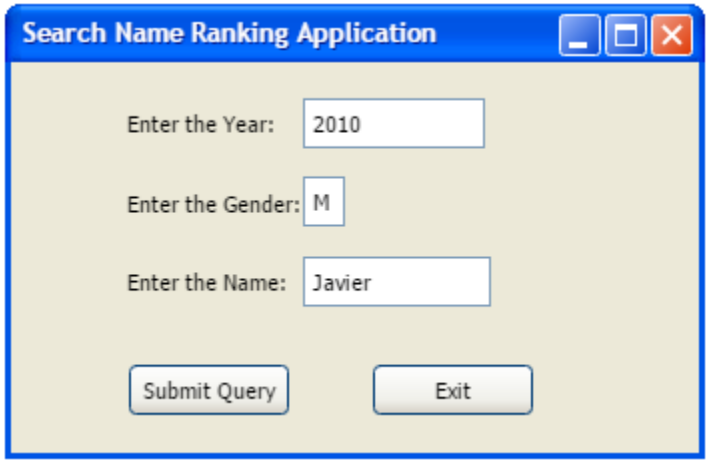
- The popularity ranking of baby names from years 2009 to 2018 is downloaded from www.ssa.gov/oact/babynames and stored in files named **babynamesranking2009.txt**, **babynamesranking2010.txt**, . . . , **babynamesranking2018.txt**.
- Each file contains one thousand lines/ records.
- Each line contains a **ranking**, a **boy's name**, **number for the boy's name**, a **girl's name**, and **number for the girl's name**.
  For example, the first two lines in the file **babynameranking2010.txt** are as follows:

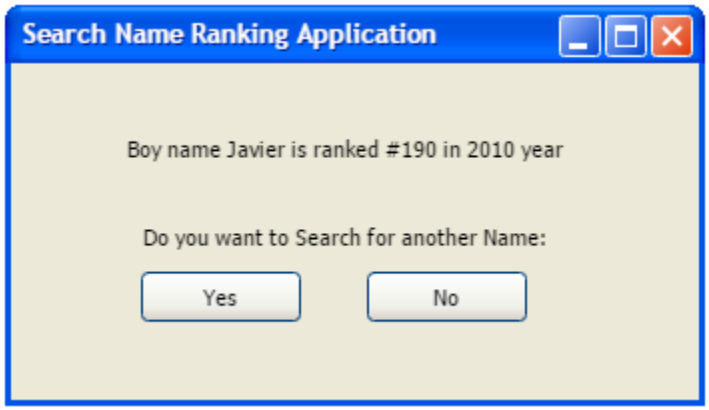
1. Jacob 21,875 Isabella 22,731
2. Ethan 17,866 Sophia 20,477

So, the boy's name Jacob and girl's name Isabella are ranked #1 and the boy's name Ethan and girl's name Sophia are ranked #2. 21,875 boys are named Jacob and 22,731 girls are named Isabella.

Note: There are some common names for both boys ang girls as well.

You have to write a program that asks the user to enter the year, gender, and followed by a name, and displays the ranking of the name for the year. Here is a sample run:





Task – 2 (Design yourself)

Write an application that plays “guess the number” as follows:
Your application chooses the number to be guessed by selecting an integer at random in the range 1–1000.
The application then displays the following in a label:

I have a number between 1 and 1000. Can you guess my number?
Please enter your first guess.

A TextField should be used to input the guess. As each guess is input, the background color should change to either red or blue. Red indicates that the user is getting “warmer,” and blue, “colder.” A Label should display either "Too High" or "Too Low" to help the user zero in. When the user gets the correct answer, "Correct!" should be displayed, and the TextField used for input should be changed to be un-editable. A Button should be provided to allow the user to play the game again. When the Button is clicked, a new random number should be generated and the input TextField changed to be editable.

Workshop Header

/**
Workshop #
Course:*<subject type> - Semester*
Last Name:*<student last name>*
First Name:*<student first name>*
ID:*<student ID>*
Section:*<section name>*
This assignment represents my own work in accordance with Seneca Academic Policy.
Signature
Date:*<submission date>*
**/

Code Submission Criteria:

Please note that you should have:

- Appropriate indentation.
- Proper file structure
- Follow java naming convention
- Document all the classes properly using JavaDoc
- JavaDoc should be generated properly in the project
- Do Not have any debug/ useless code and/ or files in the assignment

Deliverables and Important Notes:

All these deliverables are supposed to be uploaded on the blackboard once done.

- You are supposed to create **video with voice** of your running solution. **(50%)**
  - Screen Video captured file should state your last name and id, like Ali_123456.mp4 (or whatever the extension of the file is)

    OR
  - Show your work during the lab
- A text file which will reflect on learning of your concepts in this workshop. **(20%)**
  - Should state your Full name and Id on the top of the file and save the file with your last name and id, like Ali_123456.txt
- JavaDocs must be used for proper documentation of each task. **(15%)**
- Submission of working code. **(15%)**
  - Make sure your follow the "**Code Submission Criteria"** mentioned above.

    - You should zip your whole working project to a file named after your Last Name followed by the first 3 digits of your student ID. For example, **Ali123.**zip.
- Your marks will be deducted according to what is missing from the above-mentioned submission details.
- Late submissions would result in additional 10% penalties for each day or part of it.

Remember that you are encouraged to talk to each other, to the instructor, or to anyone else about any of the assignments, but the final solution may not be copied from any source.