

Objectives:

- 1. To read data from a file using the **Scanner** classes.
- 2. To write a simple JavaFX program and understand the relationship among stages, scenes, and nodes.
- 3. To create user interfaces using panes and shapes.
- 4. To create colors using the Color class.

Specification

Submission: Online through Ritaj.

What to submit: Your OWN well-structured and well-commented JAVA files (.java) (compressed into a

studentId_LabSec#.rar file, e.g. 1234567_LabSec1.rar).

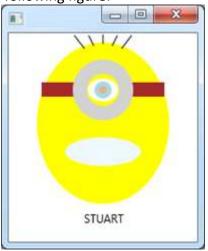
Deadline: **20/5/2019** by midnight. (The online submission will be disabled after this time).

Tasks

Task 1:

Step1: Create the following text file "data.txt"

Step2: Write a Java program that open the data file that was created in step1 and read it line by line. Convert each line to a JavaFX shape object according to the first token (e.g. first line will be converted to and Ellipse object with centerX=100, centerY=95, radiusX=70, and radius=85 and setFill color to YELLOW) and so on. The output of your program should looks like the following figure:



Ellipse, 100, 95, 70, 85, YELLOW Rectangle, 35, 52, 130, 15, BROWN Circle, 100, 60, 32, LIGHTGRAY Circle, 100, 60, 17, YELLOW Ellipse, 100, 60, 16, 12, WHITE Circle, 100, 60, 9, LIGHTBLUE Circle, 100, 60, 4, BURLYWOOD Ellipse, 100, 125, 40, 15, ALICEBLUE Line, 100, 11, 100, 2 Line, 90, 13, 85, 3

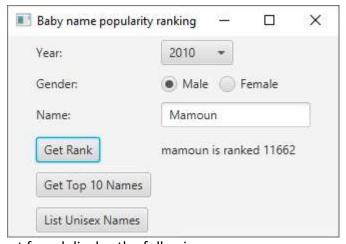
Line, 110, 13, 115, 3 Line, 80, 16, 70, 3 Line, 120, 16, 130, 3 Text, 80, 200, STUART

Task 2:

Referring to Assignment 3 - Task 1 and Task2, create a functional GUI as follow:



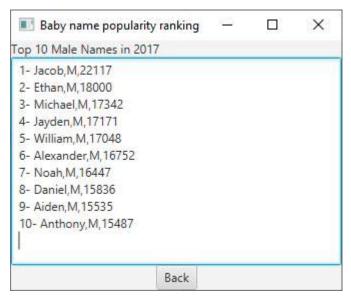
• When you click the "**Get Rank**" button, the name ranked in the selected year is displayed as follow:



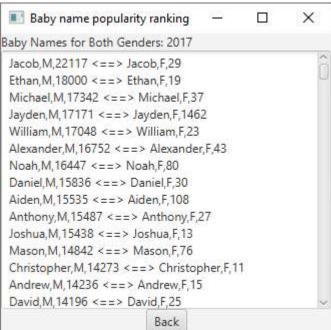
o If the name is not found display the following:



• When you click the "**Get Top 10 Names**" button, the top 10 male or female names in the selected year is displayed in a new scene as follow:



• When you click the "List Unisex Names" button, all the unisex names in the selected year is displayed in a new scene as follow:



• When you click the "Back" button, it will take you back to the 1st scene.

Good Luck!