Langara
THE COLLEGE OF HIGHER LEARNING.

Department of Computing Science & Information Systems
CPSC 1181
Lab#8
Nov 3, 2022
Objectives:

JavaFX Event Handling
JavaFX Animation

Preparation:

Study JavaFX

Due date:

Due Date: 11:00 PM on Wednesday Nov 9, 2022

Where to upload:

zip your source files into yourStudentId.zip file where yourStudentId is your student number, and upload it to lab8 drop box in D2L.

What to do:

Part A: [35 marks]

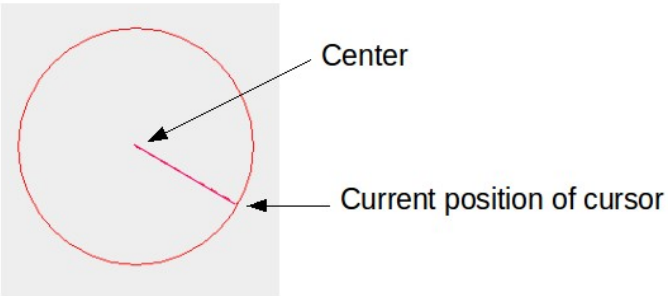
Develop a Java program that draws circles by user mouse clicks based on the following specifications:

1. The first mouse click specifies the center of the circle.

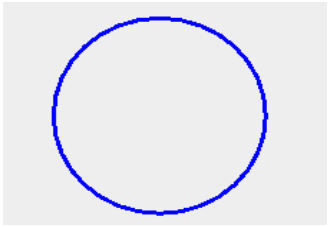
2. Then a circle and a line that connects the center of the circle to the current position of the mouse on the screen are displayed.

- Use red color for both circle and the line

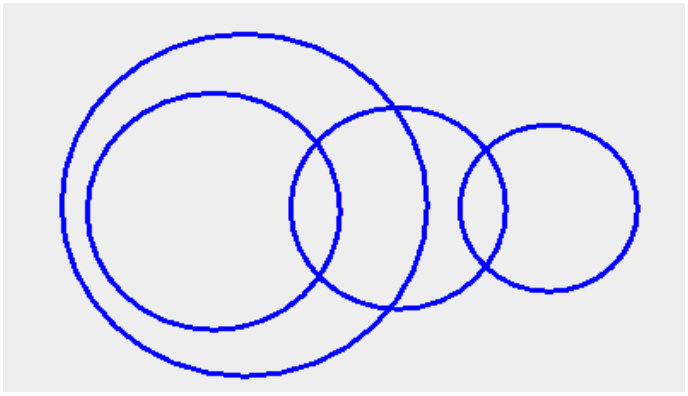
Note that the size of the circle changes as you move the cursor on the screen.



3. The second mouse click creates the circle and displays it in blue color. The cycle repeats.



4. User can create as many as circles as they want.



Check demo.mp3 file for a sample run of the program.

Part B: [25 marks]

Download Lab8B.java, and use it to develop the part B of the assignment.

The program consists of a dialog on the left and a Pane on the right for display. The default values for the number of circles and duration(ms) are set to 10 and 500 ms respectively.

Clicking the start button, program reads number of the circles and duration from the input; then the program creates circles with a random color on the right panel.
The program animates each circle by scaling it to zero in the duration intervals.
Check the B.mp3.

Scaling down an object:

We have already learned ScaleTransition and use two methods: setByX(…) and setByX(…), however, to scale down an object you need to combine following two methods for each dimension of the transition.

```
ScaleTransition scaleTr= new ScaleTransition();
scaleTr.setFromX(1);
scaleTr.setFromY(1);
scaleTr.setToX(0.001);
scaleTr.setToY(0.001);
```

Using combination of these four methods, the scale of the object will start from 100% and reduces to 0.1% percent in the duration intervals.

What to upload:

1. Document your code using javadoc comments.
2. Zip your source files into yourStudentID.zip file and upload it.

Total mark: 60