SWE312: Software Construction & User Interfaces

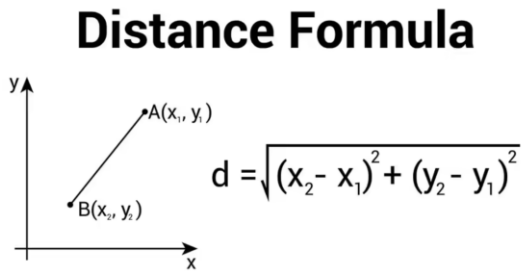
Lab 5

JavaFX Shapes

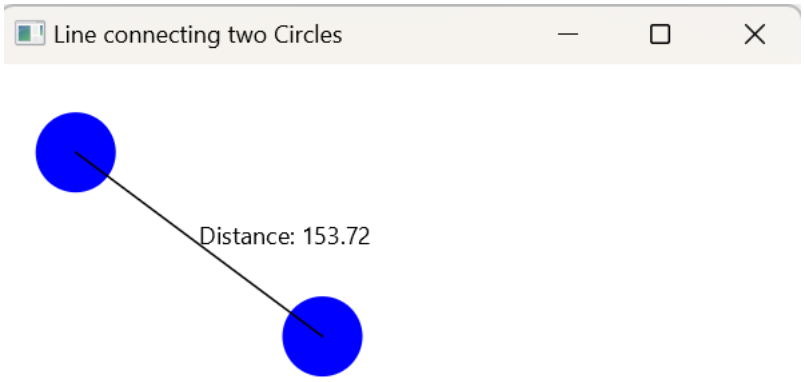
- Due date: Monday 11th , of November 2024.
- Work INDIVIDUALLY. No group work is accepted.
- Stick to deadlines! Late assignments will not be accepted.
- Submit your solution to the LMS system, do not send it by email.

Q1: Write a JavaFX program that draws two filled circles with radius 20 pixels, centered at random locations, with a line connecting the two circles. The distance between the two centers is displayed on the line.

To calculate the distance between two points, use the formula below:

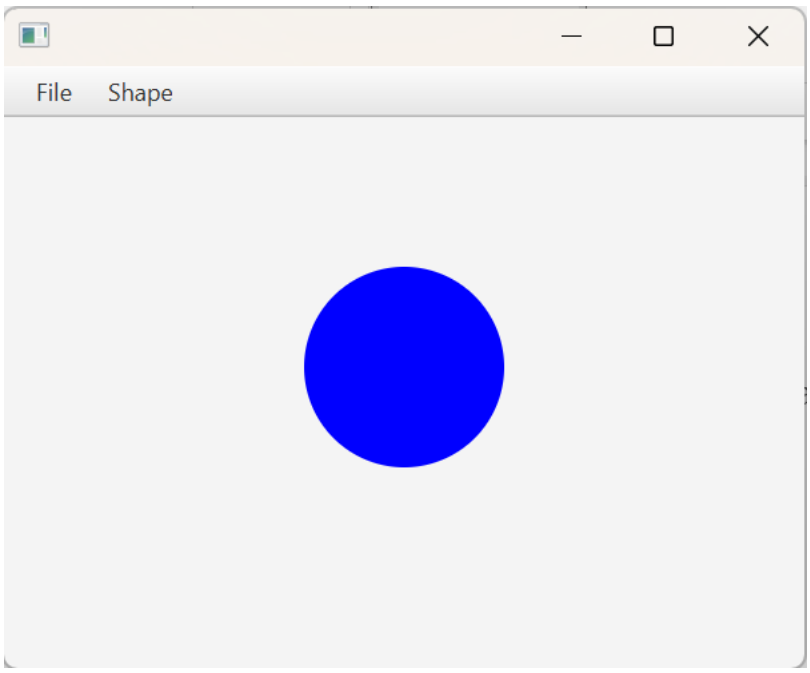


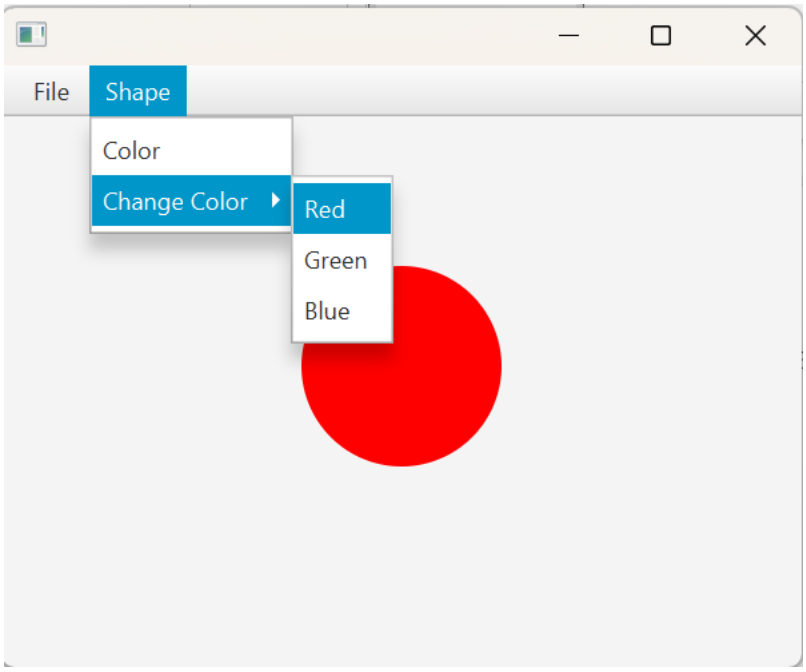
Sample Run:

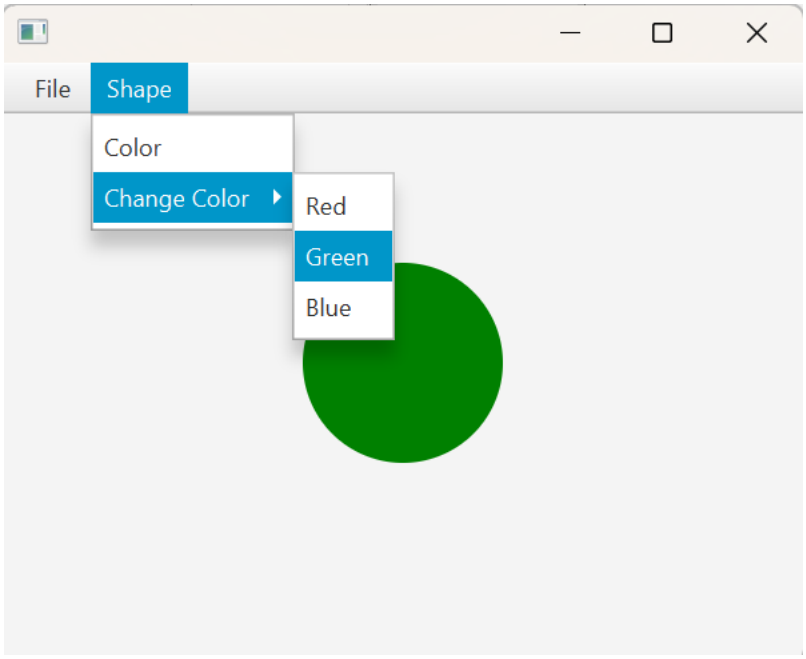


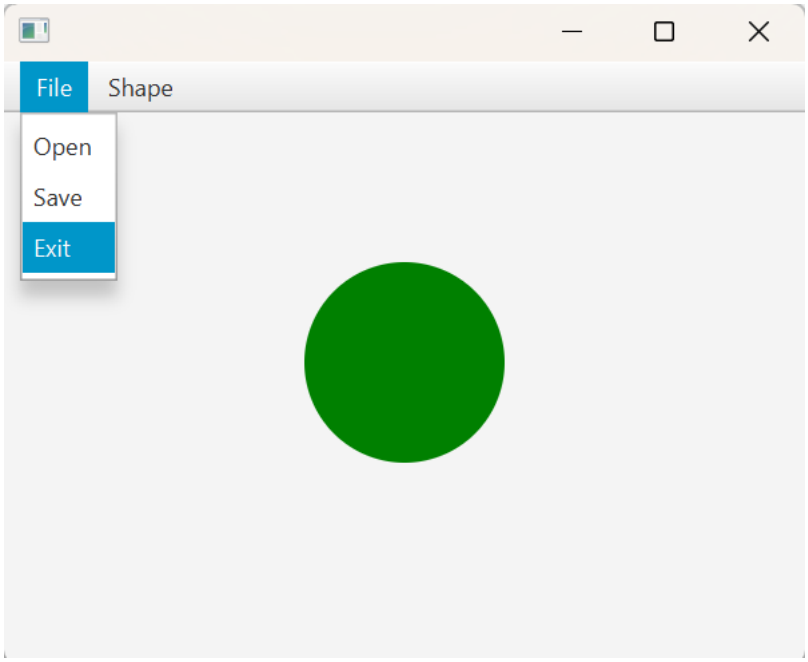
Q2: Create JavaFX menu which allows the user to change the color of the circle and to exit if the user clicks **Exit**.

Sample Run:





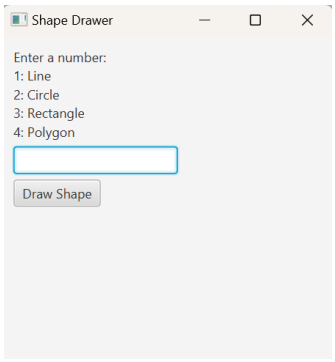


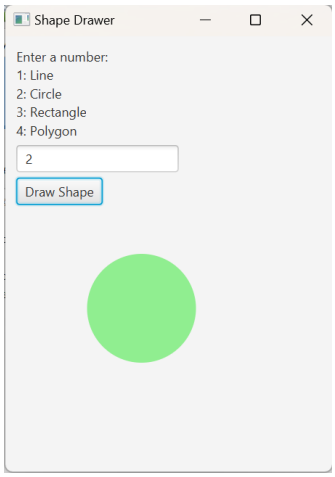


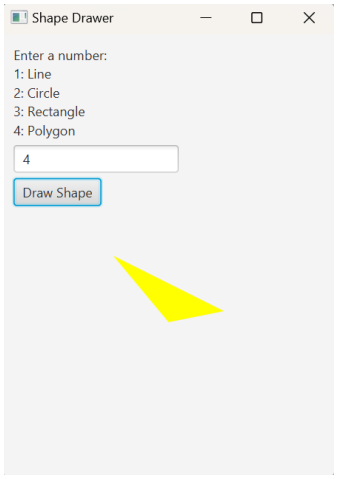
Q3: Create a simple JavaFX GUI application where the user can enter a number (1 to 4) to draw different shapes on the screen. Here's a summary in three lines:

1. The user is prompted to enter a number (1: Line, 2: Circle, 3: Rectangle, 4: Polygon).
2. Based on the entered number, the corresponding shape is drawn on the screen in specific colors and sizes.
3. The GUI includes a button to trigger the shape drawing, with feedback for invalid input.

Sample Run:


Shape Drawer
Enter a number:
1: Line
2: Circle
3: Rectangle
4: Polygon
Draw Shape


Shape Drawer
Enter a number:
1: Line
2: Circle
3: Rectangle
4: Polygon
2
Draw Shape


Shape Drawer
Enter a number:
1: Line
2: Circle
3: Rectangle
4: Polygon
4
Draw Shape