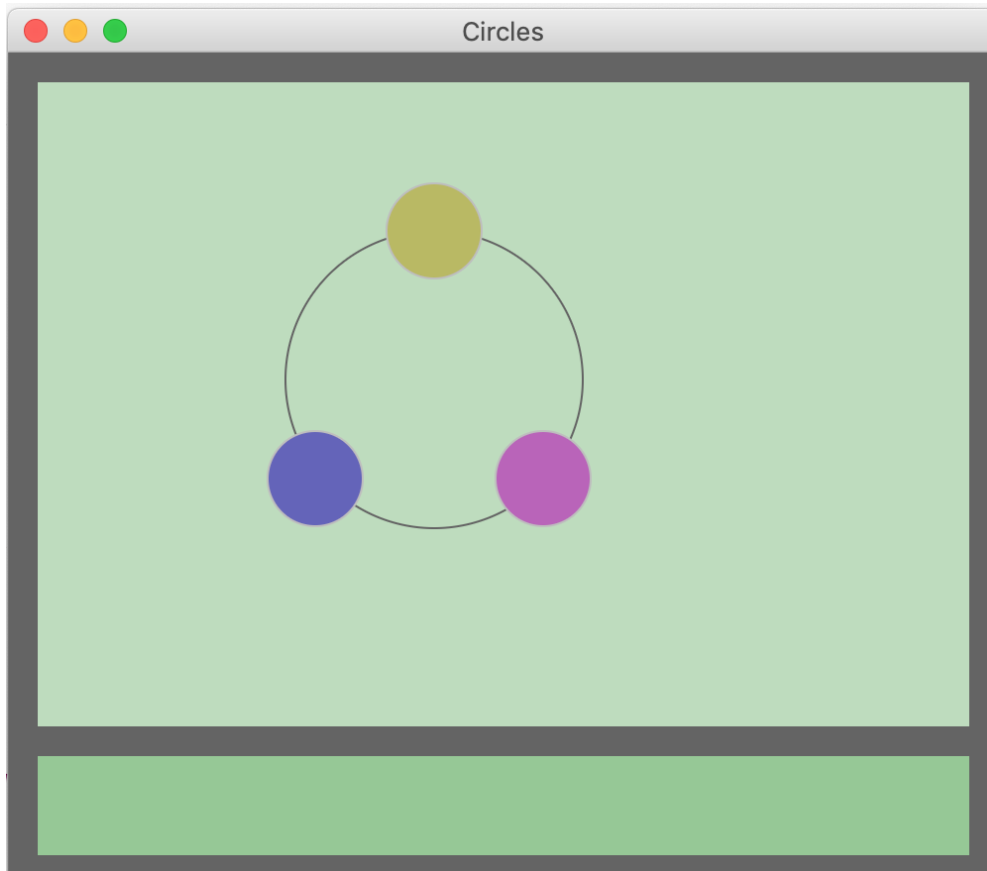


The Circles project adds circles to the pane. Circles c1 through c3 are rendered in different colors, and one of the circles s1 has the fill color set to null. Setting the fill color to null causes the body of the circle to be transparent and only the stroke color (outline of the circle) is visible.



```
// COP2800
// 2-Circles
// Student Name

import javafx.application.Application;
import javafx.geometry.Insets;
import javafx.scene.Scene;
import javafx.scene.layout.Background;
import javafx.scene.layout.BackgroundFill;
```

```
import javafx.scene.layout.HBox;
import javafx.scene.layout.Pane;
import javafx.scene.layout.VBox;
import javafx.scene.paint.Color;
import javafx.scene.shape.Circle;
import javafx.stage.Stage;
```

```
public class MainClass extends Application
{
    Pane p;
    Circle s1;
    Circle c1;
    Circle c2;
    Circle c3;

    public static void main(String[] args)
    {
        launch(args);
    }

    public void start(Stage stage)
    {
        Color strokeColor = Color.rgb(190, 190, 190);

        // Create Circle outline
        s1 = new Circle(200, 150, 75);
        s1.setStroke(Color.rgb(100, 100, 100));
        s1.setFill(null);

        // Create Circles
        c1 = new Circle(200, 75, 24);
        c1.setStroke(strokeColor);
        c1.setFill(Color.rgb(185, 185, 100));

        c2 = new Circle(255, 200, 24);
        c2.setStroke(strokeColor);
        c2.setFill(Color.rgb(185, 100, 185));

        c3 = new Circle(140, 200, 24);
        c3.setStroke(strokeColor);
        c3.setFill(Color.rgb(100, 100, 185));

        // Create a Pane
        p = new Pane();
        p.setMinSize(400, 325);
```

```

p.setBackground(new Background(new BackgroundFill( Color.rgb(190, 220, 190),
                                                    null, null) ));
p.getChildren().addAll(s1, c1, c2, c3);

// Create horizontal box for buttons
HBox hb = new HBox();
hb.setMinSize(100, 50);
hb.setPadding(new Insets(10,10,10,10));
hb.setSpacing(7);
hb.setBackground(new Background(new BackgroundFill( Color.rgb(150, 200, 150),
                                                    null, null) ));

// Create vertical box
VBox vb = new VBox();
vb.setPadding(new Insets(15,15,15,15));
vb.setSpacing(15);
vb.setBackground(new Background(new BackgroundFill( Color.rgb(100, 100, 100),
                                                    null, null) ));

vb.getChildren().addAll(p, hb);

/*
 * To Do
 * Implement your code here
 */

// Create the scene
Scene scene = new Scene(vb);
stage.setScene(scene);

stage.setTitle("Circles");
stage.setWidth(500.0);
stage.setHeight(440.0);
stage.show();
} // End Start
} // End MainClass

```