2.5 Style Rules Applied to a JavaFX Application

- View <u>sample program</u> **class HappyFace,** listing 2.9

Program Output

Sample Screen Output

// Listing 1.2

```java
import javafx.application.Application;
import javafx.scene.canvas.Canvas;
import javafx.scene.Scene;
import javafx.scene.Group;
import javafx.stage.Stage;
import javafx.scene.canvas.GraphicsContext;
import javafx.scene.shape.ArcType;

public class HappyFace extends Application
{
    public static void main(String[] args)
    {
        launch(args);
    }

    @Override
    public void start(Stage primaryStage) throws Exception
    {
            Group root = new Group();
            Scene scene = new Scene(root);

            Canvas canvas = new Canvas(400, 300);
            GraphicsContext gc = canvas.getGraphicsContext2D();
            gc.strokeOval(100, 50, 200, 200);
            gc.fillOval(155, 100, 10, 20);
            gc.fillOval(230, 100, 10, 20);
            gc.strokeArc(150, 160, 100, 50, 180, 180, ArcType.OPEN);

            root.getChildren().add(canvas);
            primaryStage.setTitle("HappyFace in JavaFX");
            primaryStage.setScene(scene);
            primaryStage.show();
    }
}
```
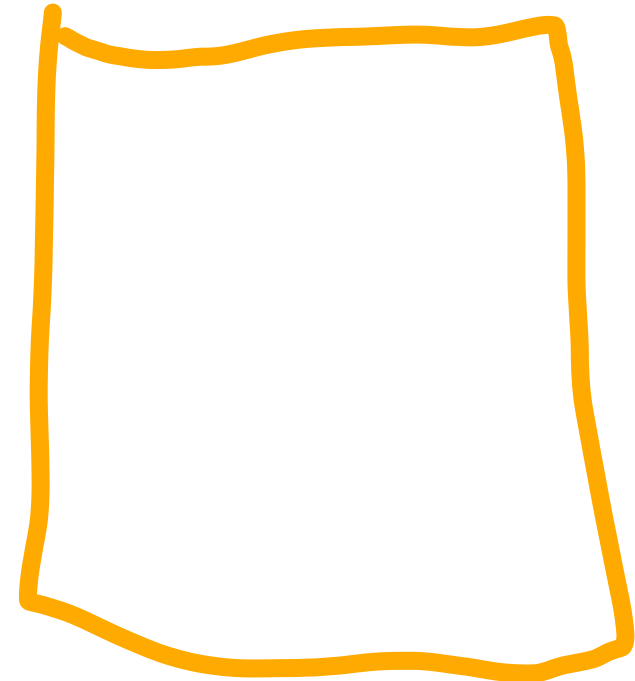
Listing 2.9 revision of Listing 1.2 using Named Constants and Comments

```java
import javafx.application.Application;
import javafx.scene.canvas.Canvas;
import javafx.scene.Scene;
import javafx.scene.Group;
import javafx.stage.Stage;
import javafx.scene.canvas.GraphicsContext;
import javafx.scene.shape.ArcType;
/**
 JavaFX Application that displays a happy face.
 Author: Jane Q. Programmer
 Revision of Listing 1.2.
*/

public class HappyFace extends Application
{
    public static final int WINDOW_WIDTH = 400;
    public static final int WINDOW_HEIGHT = 300;

    public static final int FACE_DIAMETER = 200;
    public static final int X_FACE = 100;
    public static final int Y_FACE = 50;
```

```java
public static final int EYE_WIDTH = 10;
public static final int EYE_HEIGHT = 20;
public static final int X_RIGHT_EYE = 155;
public static final int Y_RIGHT_EYE = 100;
public static final int X_LEFT_EYE = 230;
public static final int Y_LEFT_EYE = Y_RIGHT_EYE;

public static final int MOUTH_WIDTH = 100;
public static final int MOUTH_HEIGHT = 50;
public static final int X_MOUTH = 150;
public static final int Y_MOUTH = 160;
public static final int MOUTH_START_ANGLE = 180;
public static final int MOUTH_DEGREES_SHOWN = 180;

public static void main(String[] args)
{
  launch(args);
}
```
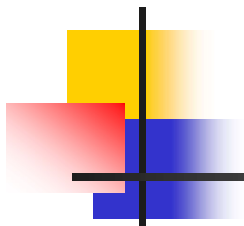
```java
@Override
 public void start(Stage primaryStage) throws Exception
 {

        Group root = new Group();
        Scene scene = new Scene(root);


    Canvas canvas = new Canvas(WINDOW_WIDTH, WINDOW_HEIGHT);
    GraphicsContext gc = canvas.getGraphicsContext2D();
    // Draw face outline
    gc.strokeOval(X_FACE, Y_FACE, FACE_DIAMETER, FACE_DIAMETER);
    // Draw eyes
        gc.fillOval(X_RIGHT_EYE, Y_RIGHT_EYE, EYE_WIDTH, EYE_HEIGHT);
        gc.fillOval(X_LEFT_EYE, Y_LEFT_EYE, EYE_WIDTH, EYE_HEIGHT);
        // Draw mouth
        gc.strokeArc(X_MOUTH, Y_MOUTH, MOUTH_WIDTH, MOUTH_HEIGHT,
                MOUTH_START_ANGLE, MOUTH_DEGREES_SHOWN,
ArcType.OPEN);


    root.getChildren().add(canvas);
    primaryStage.setTitle("HappyFace in JavaFX");
    primaryStage.setScene(scene);
    primaryStage.show();
 }
}
```

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