Team Ganymede: Assignment 1

Preamble

Actual LOC:
- Main Method: 2
- Start Method: 58

Estimated LOC at completion:
- Main Method: 10
- Start Method: 200

Total Effort:
- Main Method:
  - Raena: 1 minute
- Start Method:
  - Raena: 3 hours
  - Anh:

The Assignment

The Ambient product is currently a JavaFX app that shows a gray circle upon first usage. When a value between 0 and 99 is entered into the first textbox, the color of the circle will change depending on the value entered.

Colors Guide
Gray: The starting color
Red: Any positive value less than and equal to 25
Purple: Any Value between 25 to 50, excluding 25
Green: Any value between 50 and 75, excluding 50
Yellow: Any Value betweeen 75 and 99, excluding 75

When a value between 0 and 99 is entered into the second textbox, the brightness of the circle will change depending on the value entered.

Brightness Guide
Dim: Any value between 0 and 33
Regular: Any Value between 33 and 66
Bright: Any Value between 66 and 99

The Code

```
/* Team Ganymede
 * Raena & Ahn
 */

//Importing JavaFX Libraries
import java.io.IOException;
import java.nio.file.Files;
import java.util.Scanner;
import javafx.application.Application;
import javafx.scene.*;
import javafx.scene.control.*;
import javafx.scene.layout.*;
import javafx.stage.Stage;
import javafx.scene.paint.*;
import javafx.scene.shape.*;
import javafx.stage.FileChooser;
import javafx.event.*;
import javafx.geometry.Pos;
import javafx.scene.effect.*;

//JavaFX class
public class main extends Application {

	//main method
	public static void main(String[] args){

		//launches the GUI
		launch(args);
	}

	//start method
	public void start(Stage primaryStage) throws Exception{

		//Sets the program title to "Text Editor"
		primaryStage.setTitle("Ambient Product");

		VBox root = new VBox();
		root.setSpacing(20);
		root.setAlignment(Pos.CENTER);

		ColorAdjust brightness = new ColorAdjust();
		brightness.setBrightness(0);
```

```
            Circle circle = new Circle(200,200,100,Color.GRAY);

            Label label1 = new Label("Enter a value between 0 and 99
for the color:");
            Label warning = new Label("");
            Label label2 = new Label("Enter a value between 0 and 99
for the brightness:");

            TextField value1 = new TextField();
            value1.setMaxWidth(50);
            TextField value2 = new TextField();
            value2.setMaxWidth(50);

            Button btn = new Button();
            btn.setText("Enter");

        btn.setOnAction(new EventHandler<ActionEvent>() {
            @Override
            public void handle(ActionEvent event) {
                warning.setText("");
                int savedValue = Integer.parseInt(value1.getText());
                if ((savedValue >= 0 && savedValue <= 25)) {
                    circle.setFill(Color.RED);
                }else if ((savedValue >= 26 && savedValue <= 50)) {
                    circle.setFill(Color.PURPLE);
                }else if ((savedValue >= 51 && savedValue <= 75)) {
                    circle.setFill(Color.GREEN);
                }else if ((savedValue >= 76 && savedValue <= 99)) {
                    circle.setFill(Color.YELLOW);
                }else {
                    warning.setText("You have not entered a valid
value");
                }

                int savedValue2 = Integer.parseInt(value2.getText());
                if ((savedValue2 >=0 && savedValue2 <=33)) {
                brightness.setBrightness(-.5);
                circle.setEffect(brightness);
                } else if ((savedValue2 >= 34 && savedValue2 <= 66)) {
                brightness.setBrightness(0);
                } else if ((savedValue2 >= 67 && savedValue2 <= 99)) {
                brightness.setBrightness(.5);
                } else {
```

```
                    warning.setText("You have not entered a valid
value");
                }
                circle.setEffect(brightness);
            }
        });


            root.getChildren().add(label1);
            root.getChildren().add(value1);
            root.getChildren().add(label2);
            root.getChildren().add(value2);
            root.getChildren().add(btn);
            root.getChildren().add(circle);



            //creates a new scene object with parameters layout, 300
and 250
            Scene scene = new Scene(root, 400, 500);
            //primary stage sets the scene to the scene object
            primaryStage.setScene(scene);
            //shows the primary stage
            primaryStage.show();
    }
}
```