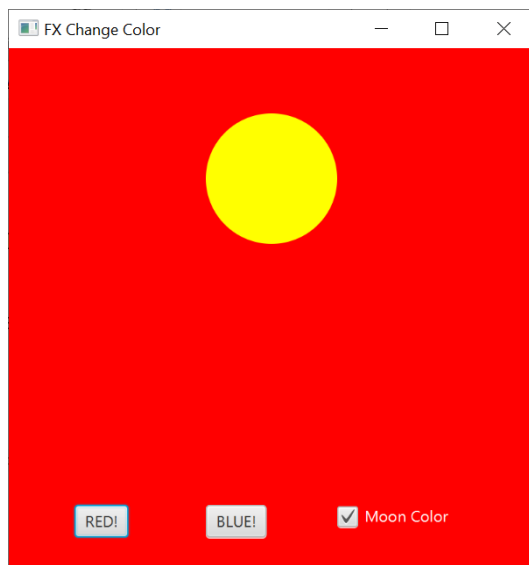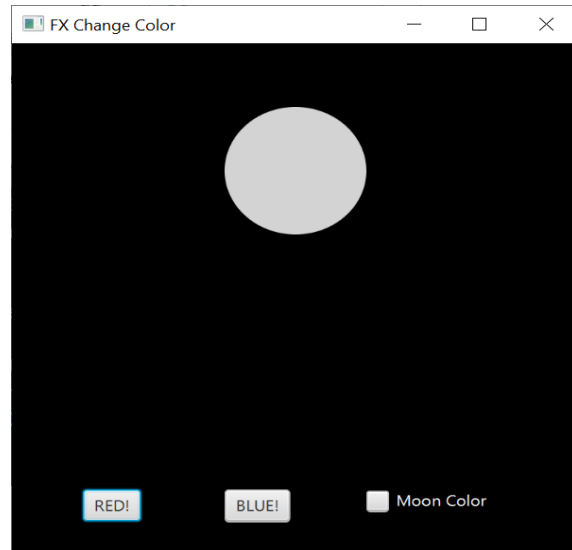# Lab7

Complete the ColorButtonsFX Application and make the buttons and check box functional.

- The red Button turns the background rectangle red
- The blue button turns the background rectangle blue
- When the check box is selected the moon becomes yellow, if not it is light gray.

Here is the starter code that sets up all needed GUI elements:

```java
public class ColorButtonsFX extends Application {
    private Button redButton;
    private Button blueButton;
    private Rectangle background;
    private Ellipse moon;
    private CheckBox moonColor;

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

    @Override
    public void start(Stage primaryStage) {
        redButton = new Button("RED!");
        redButton.setLayoutX(50);
        redButton.setLayoutY(350);

        blueButton = new Button("BLUE!");
        blueButton.setLayoutX(150);
        blueButton.setLayoutY(350);

        moonColor = new CheckBox("Moon Color");
        moonColor.setLayoutX(250);
        moonColor.setLayoutY(350);
        moonColor.setTextFill(Color.WHITE);

        background = new Rectangle(0, 0, 400, 400);
        moon = new Ellipse(200, 100, 50, 50);
        moon.setFill(Color.LIGHTGRAY);

        Pane root = new Pane();
        root.getChildren().addAll(background, moon, redButton, blueButton,
moonColor);

        Scene scene = new Scene(root, 400, 400);
        primaryStage.setTitle("FX Change Color");
        primaryStage.setScene(scene);
        primaryStage.show();
    }
}
```

Marking Scheme:

[10] Complete GUI program