

```
//SimpleButton.java

import javafx.application.Application;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.stage.Stage;
public class SimpleButton extends Application {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Application.launch(args);
    }

    @Override
    public void start(Stage primaryStage) throws Exception {

        Button b1 = new Button ("My Button");
        Scene scene = new Scene (b1, 400, 400);
        primaryStage.setTitle("My Simple JavaFX Application");

        primaryStage.setScene(scene);
        primaryStage.show();
    }
}
```

```

//MultipleStageDemo.java
import javafx.application.Application;
import javafx.stage.Stage;
import javafx.scene.Scene;
import javafx.scene.control.Button;
public class MultipleStageDemo extends Application {

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

    @Override
    public void start(Stage primaryStage) throws Exception {

        Button b1 = new Button();
        b1.setText("Okay");
        Scene scene = new Scene (b1, 300, 300);
        primaryStage.setTitle("My Java FX");
        primaryStage.setScene(scene);
        primaryStage.show();

        Stage stage = new Stage();
        stage.setTitle("SecondStage");
        stage.setScene(new Scene(new Button("New Stage"), 300, 300));
        stage.show();

    }

}

```

```

//LineDrawing
import javafx.application.Application;
import javafx.scene.Group;
import javafx.scene.Scene;
import javafx.scene.shape.Line;
import javafx.stage.Stage;
import javafx.scene.paint.Color;

public class LineDrawing extends Application {
    @Override
    public void start(Stage stage) {

        Line myLine = new Line();

        myLine.setStartX(100.0);
        myLine.setStartY(100.0);
        myLine.setEndX(400.0);
        myLine.setEndY(100.0);
        myLine.setStroke(Color.RED);

        Group root = new Group(myLine);
        Scene scene = new Scene(root, 600, 300);
        stage.setTitle("Sample application");
        stage.setScene(scene);
        stage.show();
    }
    public static void main(String args[]){
        Launch(args);
    }
}

```

```
//DisplayingText.java
```

```
import javafx.application.Application;
import javafx.scene.Group;
import javafx.scene.Scene;
import javafx.stage.Stage;
import javafx.scene.text.Font;
import javafx.scene.text.Text;
import javafx.scene.layout.FlowPane;
import javafx.scene.paint.Color;
import javafx.scene.text.TextAlignment;

public class DisplayingText extends Application {
    @Override
    public void start(Stage stage) {

        Text my_text = new Text();
        my_text.setText("Welcome to JavaFX");

        my_text.setX(50);
        my_text.setY(150);

        my_text.setFont(new Font(50));
        my_text.setFill(Color.WHITE);
        my_text.setUnderline(true);
        my_text.setStroke(Color.BLUE);

        Group group = new Group(my_text);

        Scene scene = new Scene(group, 500, 300);

        stage.setTitle("Sample Application");

        stage.setScene(scene);

        stage.show();

    }

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

```
//JavaFX_Rectangle.java

import javafx.application.Application;
import javafx.scene.Group;
import javafx.scene.Scene;
import javafx.scene.paint.Color;
import javafx.stage.Stage;
import javafx.scene.shape.Rectangle;

public class JavaFX_Rectangle extends Application {
    @Override
    public void start(Stage stage) {

        Rectangle rectangle = new Rectangle();

        rectangle.setX(10.0);
        rectangle.setY(10.0);
        rectangle.setWidth(200.0);
        rectangle.setHeight(50.0);
        rectangle.setStroke(Color.AQUAMARINE);

        Group root = new Group(rectangle);

        Scene scene = new Scene(root, 600, 300);

        stage.setTitle("My Rectangle");

        stage.setScene(scene);

        stage.show();
    }
    public static void main(String args[]){
        launch(args);
    }
}
```

```
//JavaFX_Circle.java
import javafx.application.Application;
import javafx.scene.Group;
import javafx.scene.Scene;
import javafx.scene.paint.Color;
import javafx.stage.Stage;
import javafx.scene.shape.Circle;

public class JavaFX_Circle extends Application {
    @Override
    public void start(Stage stage) {

        Circle my_circle = new Circle();

        my_circle.setCenterX(300);
        my_circle.setCenterY(135);
        my_circle.setRadius(100);
        my_circle.setStroke(Color.BLACK);
        my_circle.setFill(Color.RED);

        Group root = new Group(my_circle);

        Scene scene = new Scene(root, 600, 300);

        stage.setTitle("Drawing a Circle");

        stage.setScene(scene);

        stage.show();
    }

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

```
//MyEventHandlerApplication.java
```

```
import javafx.application.Application;
import javafx.event.ActionEvent;
import javafx.event.EventHandler;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.layout.StackPane;
import javafx.stage.Stage;
```

```
public class MyEventHandlerApplication extends Application implements
EventHandler<ActionEvent> {
```

```
    Button b1, b2, b3;
    public static void main(String[] args) {
        // TODO Auto-generated method stub
        launch();
    }
```

```
@Override
```

```
public void start(Stage arg0) throws Exception {
    // TODO Auto-generated method stub
```

```
    b1 = new Button();
    b1.setText("Hello 1");
```

```
    b1.setTranslateX(-40);
    b1.setTranslateY(0);
```

```
    b1.setOnAction(this);
```

```
    b2 = new Button();
    b2.setText("Hello 2");
```

```
    b2.setTranslateX(40);
    b2.setTranslateY(0);
```

```
    b2.setOnAction(this);
```

```
    b3 = new Button();
    b3.setText("Hello 3");
    b3.setTranslateX(0);
    b3.setTranslateY(40);
```

```
    b3.setOnAction(this);
```

```
    StackPane layout = new StackPane();
    layout.getChildren().add(b1);
    layout.getChildren().add(b2);
    layout.getChildren().add(b3);
```

```
    Scene scene = new Scene (layout, 300, 250);
    arg0.setTitle("Welcome to my EH");
    arg0.setScene(scene);
```

```
        arg0.show();
    }

    @Override
    public void handle(ActionEvent event) {

        if (event.getSource() == b1)
        {
            System.out.println("You clicked the first button");
        }
        else if (event.getSource() == b2)
        {
            System.out.println("You clicked the second button");
        }
        else
        {
            System.out.println("You clicked the third button");
        }
    }
}
```



```
//MySecondHandlerApplication.java
```

```
import javafx.application.Application;
import javafx.event.ActionEvent;
import javafx.event.EventHandler;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.layout.StackPane;
import javafx.stage.Stage;

public class MySecondHandlerApplication extends Application {

    Button b1, b2;
    public static void main(String[] args) {
        launch();
    }

    @Override
    public void start(Stage arg0) throws Exception {
        // TODO Auto-generated method stub
        b1 = new Button();
        b1.setText("First");

        b1.setOnAction(new EventHandler<ActionEvent>() {
            public void handle(ActionEvent event) {
                System.out.println("This is my first button");
            }
        });

        b1.setTranslateX(-40);
        b1.setTranslateY(0);

        b2 = new Button();
        b2.setText("Second");

        b2.setTranslateX(40);
        b2.setTranslateY(0);

        b2.setOnAction(new EventHandler<ActionEvent>() {
            public void handle(ActionEvent event) {
                System.out.println("This is my second button");
            }
        });

        StackPane layout = new StackPane();
        layout.getChildren().add(b1);
        layout.getChildren().add(b2);

        Scene scene = new Scene (layout, 300, 250);
        arg0.setTitle("Welcome to my EH");
        arg0.setScene(scene);
        arg0.show();
    }
}
```

```

//MyThirdHandlerApplication.java

import javafx.application.Application;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.layout.StackPane;
import javafx.stage.Stage;

public class MyThirdHandlerApplication extends Application {

    Button b1;
    public static void main(String[] args) {
        launch();
    }

    @Override
    public void start(Stage arg0) throws Exception {
        // TODO Auto-generated method stub
        b1 = new Button();
        b1.setText("Hello");

        b1.setOnAction(e ->
        {
            System.out.println("Hello"); // New syntax
            System.out.println("I am here");
        });

        StackPane layout = new StackPane();
        layout.getChildren().add(b1);

        Scene scene = new Scene (layout, 300, 250);
        arg0.setTitle("Welcome to my EH");
        arg0.setScene(scene);
        arg0.show();
    }
}

```

```

//MyForthHandlerApplication.java

import javafx.application.Application;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.control.Label;
import javafx.scene.layout.StackPane;
import javafx.stage.Stage;

public class MyForthHandlerApplication extends Application {

    Scene scene1, scene2;

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

    @Override
    public void start(Stage arg0) throws Exception {
        // TODO Auto-generated method stub
        Label label = new Label("Page 1");
        Button b1 = new Button("Go to Page 2");
        b1.setOnAction(e -> arg0.setScene(scene2));

        // First Layout
        StackPane layout1 = new StackPane();
        layout1.getChildren().addAll(label, b1);

        scene1 = new Scene(layout1, 300, 300);

        // Second button
        Button b2 = new Button("Go to Page 1");
        b2.setOnAction(e -> arg0.setScene(scene1));

        // Second layout
        StackPane layout2 = new StackPane();
        layout2.getChildren().add(b2);

        scene2 = new Scene(layout2, 300, 300);
        arg0.setScene(scene1);
        arg0.setTitle("Switching between scenes");
        arg0.show();
    }
}

```

```

// MyCalculator.java
// A simple calculator

import javafx.application.Application;
import javafx.geometry.Pos;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.control.Label;
import javafx.scene.control.TextField;
import javafx.scene.layout.BorderPane;
import javafx.scene.layout.FlowPane;
import javafx.scene.layout.HBox;
import javafx.stage.Stage;
import javafx.geometry.Insets;

public class MyCalculator extends Application {
    @Override
    public void start(Stage primaryStage) {

        FlowPane pane = new FlowPane();
        pane.setHgap(2);
        pane.setAlignment(Pos.CENTER_LEFT);
        pane.setPadding(new Insets(5));
        TextField tf1 = new TextField();
        TextField tf2 = new TextField();
        TextField my_result = new TextField();
        my_result.setEditable(false);

        tf1.setPrefColumnCount(3);
        tf2.setPrefColumnCount(3);
        my_result.setPrefColumnCount(3);

        Label l1 = new Label("Number 1: ");
        Label l2 = new Label("Number 2: ");
        Label l3 = new Label("Result: ");

        pane.getChildren().addAll(l1, tf1, l2, tf2, l3, my_result);

        HBox hBox = new HBox();
        Button add_button = new Button("Add");
        Button subtract_button = new Button("Subtract");
        Button multiply_button = new Button("Multiply");
        Button divide_button = new Button("Divide");
        hBox.setAlignment(Pos.CENTER);
        hBox.getChildren().addAll(add_button, subtract_button, multiply_button,
        divide_button);

        BorderPane borderPane = new BorderPane();
        borderPane.setCenter(pane);
        borderPane.setBottom(hBox);
        borderPane.setAlignment(hBox, Pos.CENTER);

        Scene scene = new Scene(borderPane, 350, 250);
    }
}

```

```
primaryStage.setTitle("My Basic Calculator");
primaryStage.setScene(scene);
primaryStage.show();

add_button.setOnAction(e -> {
    my_result.setText(Double.parseDouble(tf1.getText()) +
        Double.parseDouble(tf2.getText()) + "");
});

subtract_button.setOnAction(e -> {
    my_result.setText(Double.parseDouble(tf1.getText()) -
        Double.parseDouble(tf2.getText()) + "");
});

multiply_button.setOnAction(e -> {
    my_result.setText(Double.parseDouble(tf1.getText()) *
        Double.parseDouble(tf2.getText()) + "");
});

divide_button.setOnAction(e -> {
    my_result.setText(Double.parseDouble(tf1.getText()) /
        Double.parseDouble(tf2.getText()) + "");
});
}

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