

Code

Main.java

```
package application;

import javafx.application.Application;
import javafx.fxml.FXMLLoader;
import javafx.stage.Stage;
import javafx.scene.Parent;
import javafx.scene.Scene;
import javafx.scene.layout.BorderPane;

public class Main extends Application {
    @Override
    public void start(Stage primaryStage) {
        try {
            Parent root =
FXMLLoader.load(getClass().getResource("Main.fxml"));
//            BorderPane root = new BorderPane();
            Scene scene = new Scene(root);

            scene.getStylesheets().add(getClass().getResource("application.css").to
ExternalForm());

            primaryStage.setScene(scene);
            primaryStage.setTitle("Assignment2-Sultan-1080082");
            primaryStage.show();
        } catch (Exception e) {
            e.printStackTrace();
        }
    }

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

Main.fxml

```
<?xml version="1.0" encoding="UTF-8"?>

<?import javafx.scene.control.Button?>
<?import javafx.scene.control.Label?>
<?import javafx.scene.control.TextField?>
<?import javafx.scene.layout.AnchorPane?>

<AnchorPane prefHeight="157.0" prefWidth="579.0"
xmlns="http://javafx.com/javafx/18" xmlns:fx="http://javafx.com/fxml/1"
fx:controller="application.controller">
    <children>
        <AnchorPane layoutY="-8.0" prefHeight="202.0" prefWidth="579.0">
            <children>
                <Button layoutX="416.0" layoutY="136.0" mnemonicParsing="false"
onAction="#sign" text="Signature" />
                <Button layoutX="260.0" layoutY="136.0" mnemonicParsing="false"
onAction="#mult" text="Mutiply" />
                <Button layoutX="340.0" layoutY="136.0" mnemonicParsing="false"
onAction="#div" text="Divide" />
                <Button layoutX="83.0" layoutY="136.0" mnemonicParsing="false"
onAction="#add" text="Add" />
                <Button layoutX="160.0" layoutY="136.0" mnemonicParsing="false"
onAction="#sub" text="Substract" />
                <Label layoutX="14.0" layoutY="29.0" text="Number 1:" />
                <Label layoutX="165.0" layoutY="29.0" text="Number 2:" />
                <Label layoutX="340.0" layoutY="29.0" text="Result:" />
                <Label fx:id="Xiaojie_Zhu" layoutX="488.0" layoutY="29.0"
text="Xiaojie Zhu" />
                <TextField fx:id="number1TextFiled" layoutX="81.0" layoutY="25.0"
prefHeight="18.0" prefWidth="58.0" text="0" />
                <TextField fx:id="resultTextFiled" editable="false"
layoutX="385.0" layoutY="25.0" prefHeight="26.0" prefWidth="86.0" text="0" />
                <TextField fx:id="number2TextFiled" layoutX="230.0"
layoutY="24.0" prefHeight="26.0" prefWidth="85.0" text="0" />
            </children>
        </AnchorPane>
    </children>
</AnchorPane>
```

controller.java

```
package application;

import javafx.fxml.FXML;
import javafx.scene.control.Label;
import javafx.scene.control.TextField;
import javafx.scene.paint.Color;

public class controller {
    float num1,num2,res;
    @FXML
    TextField number1TextFiled;

    @FXML
    TextField number2TextFiled;

    @FXML
    private TextField resultTextFiled;

    @FXML
    Label Xiaojie_Zhu;

    public void add() {
        try {
            num1=Integer.parseInt(number1TextFiled.getText());
            num2=Integer.parseInt(number2TextFiled.getText());
            res=num1+num2;
            System.out.print(res);

            resultTextFiled.setText(String.valueOf(res));
        }
        catch(Exception e) {
            System.out.println(e);
        }

    }

    public void sub() {
        try {
            num1=Integer.parseInt(number1TextFiled.getText());
            num2=Integer.parseInt(number2TextFiled.getText());
            res=num1-num2;
            System.out.print(res);

            resultTextFiled.setText(String.valueOf(res));
        }
        catch(Exception e) {
            System.out.println(e);
        }

    }

    public void mult() {
        try {
```

```

        num1=Integer.parseInt(number1TextFiled.getText());
        num2=Integer.parseInt(number2TextFiled.getText());
        res=num1*num2;
        System.out.print(res);

        resultTextFiled.setText(String.valueOf(res));
    }
    catch(Exception e) {
        System.out.println(e);
    }
}

public void div() {
    try {
        num1=Integer.parseInt(number1TextFiled.getText());
        num2=Integer.parseInt(number2TextFiled.getText());
        res=num1/num2;
        System.out.print(res);

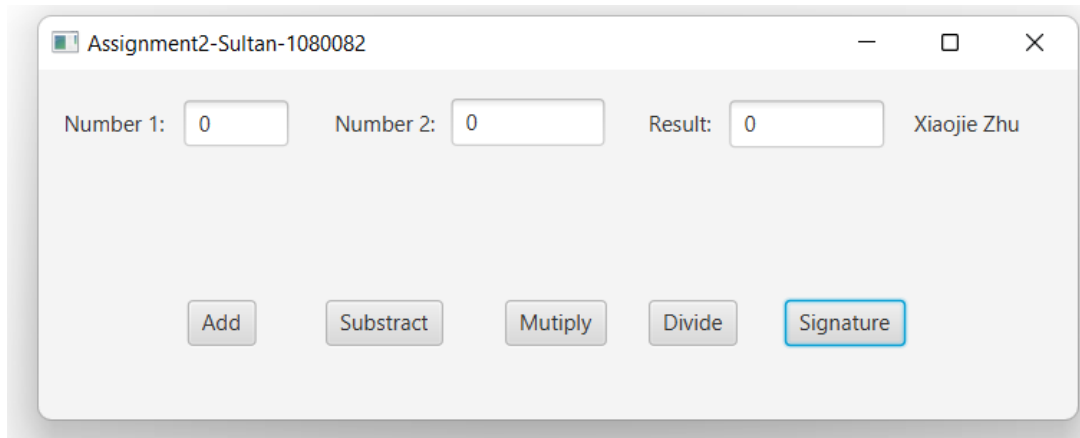
        resultTextFiled.setText(String.valueOf(res));
    }
    catch(Exception e) {
        System.out.println(e);
    }
}

public void sign() {
    Xiaojie_Zhu.setTextFill(Color.web("red"));
    Xiaojie_Zhu.setText("Sultan");
}
}

```

Output

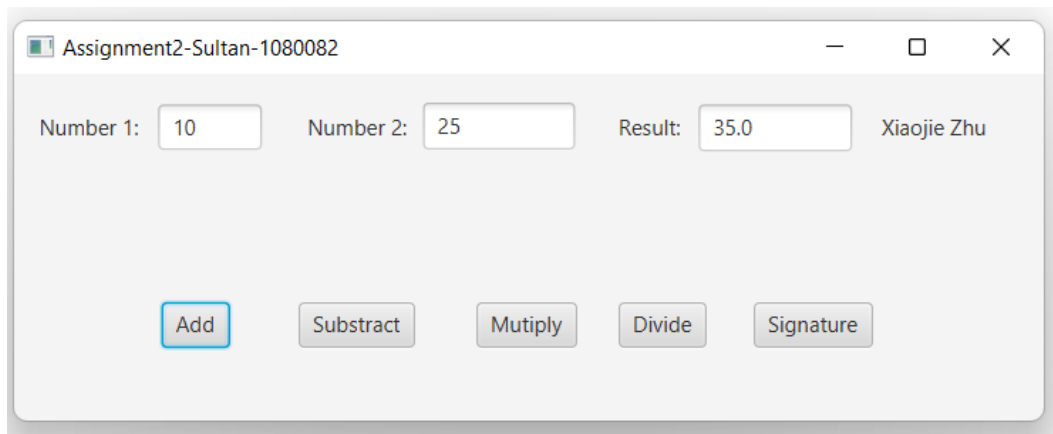
Without Any Input



Assignment2-Sultan-1080082

Number 1: Number 2: Result: Xiaojie Zhu

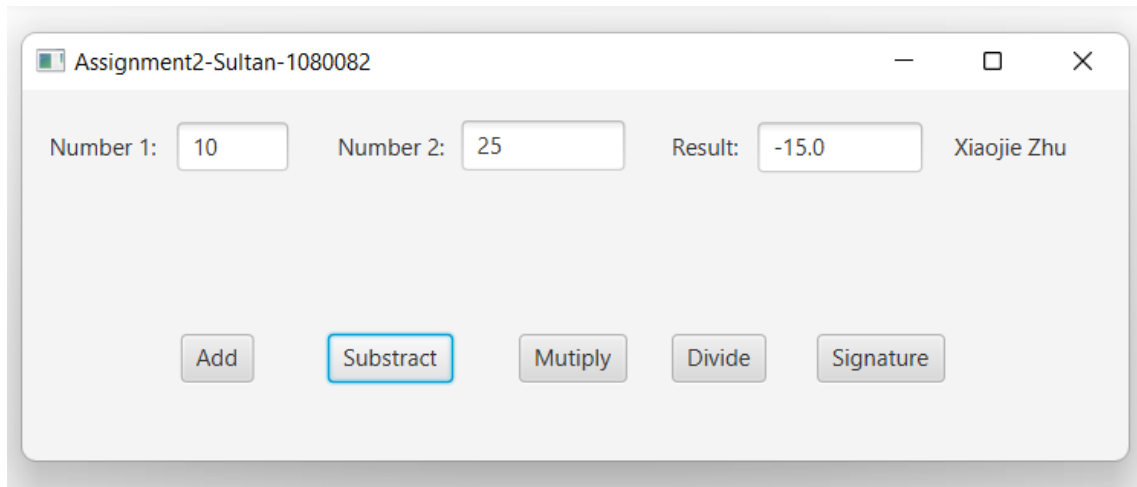
After Addition



Assignment2-Sultan-1080082

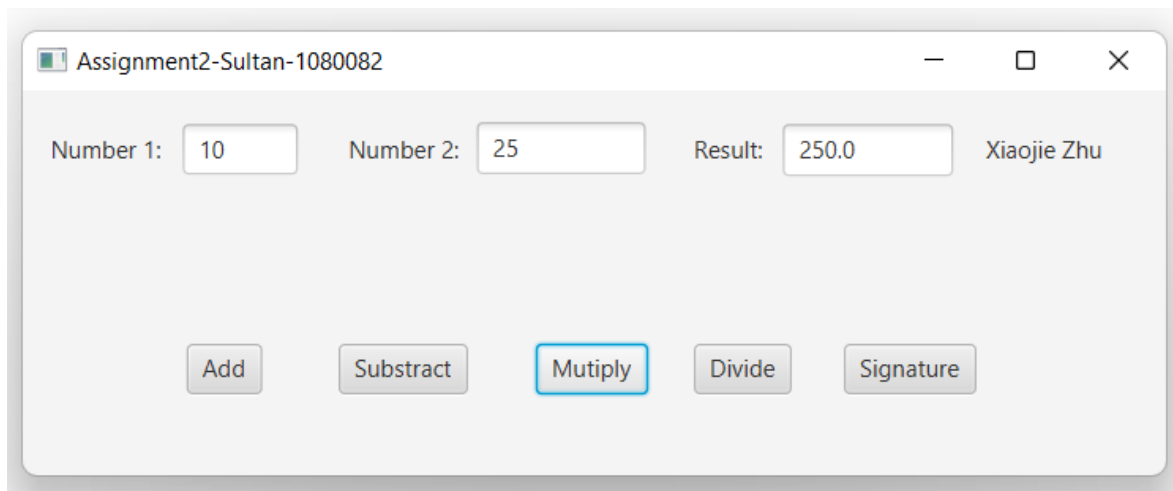
Number 1: Number 2: Result: Xiaojie Zhu

After Subtraction



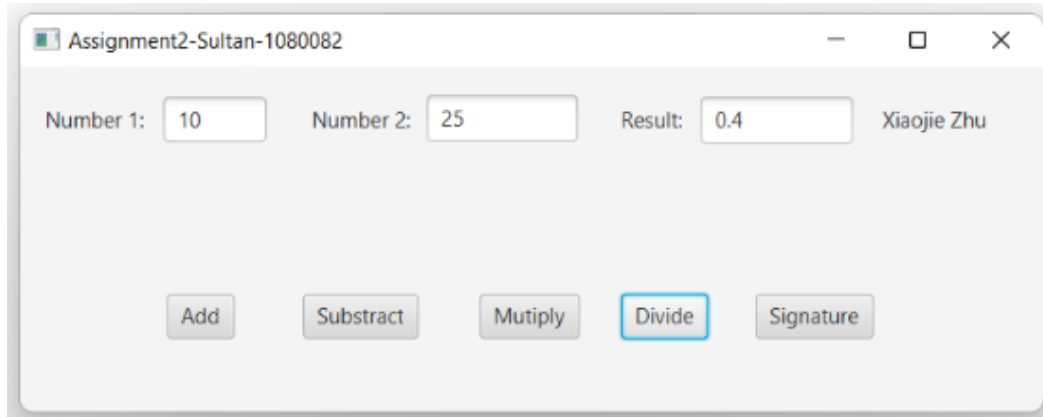
A screenshot of a calculator application window titled "Assignment2-Sultan-1080082". The window has a standard Windows-style title bar with minimize, maximize, and close buttons. Inside the window, there are three input fields: "Number 1:" with the value "10", "Number 2:" with the value "25", and "Result:" with the value "-15.0". To the right of the "Result:" field is the text "Xiaojie Zhu". Below the input fields, there are five buttons: "Add", "Subtract", "Mutiply", "Divide", and "Signature". The "Subtract" button is highlighted with a blue border.

After Multiplication



A screenshot of the same calculator application window titled "Assignment2-Sultan-1080082". The "Number 1:" field still contains "10" and the "Number 2:" field still contains "25". However, the "Result:" field now displays "250.0". The "Xiaojie Zhu" text remains to the right of the result field. Below the input fields, the five buttons ("Add", "Subtract", "Mutiply", "Divide", "Signature") are still present, but now the "Mutiply" button is highlighted with a blue border.

After Division



A screenshot of a calculator application window titled "Assignment2-Sultan-1080082". The window has a standard Windows-style title bar with minimize, maximize, and close buttons. Inside the window, there are three input fields: "Number 1:" containing "10", "Number 2:" containing "25", and "Result:" containing "0.4". To the right of the "Result:" field is the text "Xiaojie Zhu". Below these fields is a row of five buttons: "Add", "Subtract", "Mutiply", "Divide", and "Signature". The "Divide" button is highlighted with a blue border, indicating it was the last action performed.

After Signature



A screenshot of the same calculator application window, showing the state after the "Signature" button was clicked. The "Number 1:" field still contains "10", the "Number 2:" field still contains "25", and the "Result:" field still contains "0.4". However, the text to the right of the "Result:" field has changed from "Xiaojie Zhu" to "Sultan" in red. The "Signature" button is now highlighted with a blue border, while the "Divide" button is no longer highlighted.