



Programme	: BTech. CSE Core	Semester	: Win 2021-22
Course	: Java Programming	Code	: CSE1007
Faculty	: Dr. Pradeep K	Slot	: L9+L10
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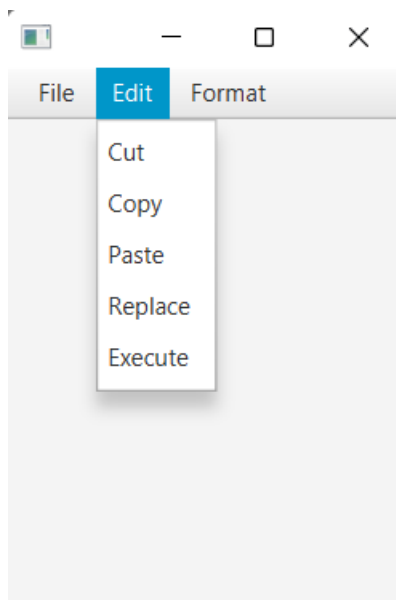
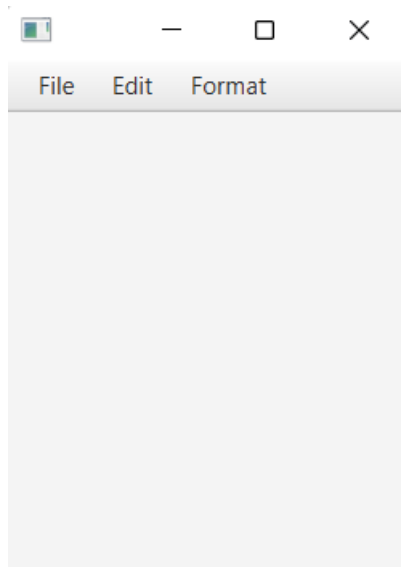
1. Create JavaFX application for the menu

```
package com.mycompany.mavenproject1;
import javafx.application.Application;
import javafx.scene.Scene;
import javafx.scene.control.*;
import javafx.scene.layout.BorderPane;
import javafx.stage.Stage;
public class App extends Application {
    public static void main(String[] args) {
        launch(args);
    }

    @Override
    public void start(Stage primaryStage) throws Exception {
        BorderPane root = new BorderPane();
        Scene scene = new Scene(root,200,300);
        MenuBar menubar = new MenuBar();
        Menu FileMenu = new Menu("File");
        MenuItem filemenu1=new MenuItem("New");
        MenuItem filemenu2=new MenuItem("Save");
        MenuItem filemenu3=new MenuItem("Exit");
        Menu EditMenu=new Menu("Edit");
        MenuItem EditMenu1=new MenuItem("Cut");
        MenuItem EditMenu2=new MenuItem("Copy");
        MenuItem EditMenu3=new MenuItem("Paste");
        MenuItem EditMenu4=new MenuItem("Replace");
        MenuItem EditMenu5=new MenuItem("Execute");
        Menu FormatMenu = new Menu("Format");
        MenuItem FormatMenu1 =new MenuItem("Color");
        MenuItem FormatMenu2 =new MenuItem("Font");
        MenuItem FormatMenu3 =new MenuItem("Size");
        MenuItem FormatMenu4 =new MenuItem("Debug");

        EditMenu.getItems().addAll(EditMenu1,EditMenu2,EditMenu3, EditMenu4,
EditMenu5);
        FormatMenu.getItems().addAll(FormatMenu1,FormatMenu2,FormatMenu3,
FormatMenu4);
        root.setTop(menubar);
        FileMenu.getItems().addAll(filemenu1,filemenu2,filemenu3);
        menubar.getMenus().addAll(FileMenu,EditMenu, FormatMenu);
        primaryStage.setScene(scene);
        primaryStage.show();
    }
}
```

OUTPUT:



2. Create JavaFX Application for Event Registration

```
package com.mycompany.mavenproject3;
import javafx.application.Application;
import javafx.event.ActionEvent;
import javafx.event.EventHandler;
import javafx.geometry.HPos;
import javafx.geometry.Insets;
import javafx.geometry.Pos;
import javafx.scene.Scene;
import javafx.scene.control.*;
import javafx.scene.layout.*;
import javafx.scene.text.Font;
import javafx.scene.text.FontWeight;
import javafx.stage.Stage;
import javafx.stage.Window;

public class App extends Application {

    @Override
```

```

public void start(Stage primaryStage) throws Exception {
    primaryStage.setTitle("Event VIT Registration - Hariket Sukesh Kumar Sheth");
    GridPane gridPane = createRegistrationFormPane();
    addUIControls(gridPane);
    Scene scene = new Scene(gridPane, 800, 500);
    primaryStage.setScene(scene);

    primaryStage.show();
}

private GridPane createRegistrationFormPane() {
    GridPane gridPane = new GridPane();
    gridPane.setAlignment(Pos.CENTER);
    gridPane.setPadding(new Insets(40, 40, 40, 40));
    gridPane.setHgap(10);
    gridPane.setVgap(10);
    ColumnConstraints columnOneConstraints = new ColumnConstraints(100, 100,
Double.MAX_VALUE);
    columnOneConstraints.setHalignment(HPos.RIGHT);
    ColumnConstraints columnTwoConstraints = new ColumnConstraints(200,200,
Double.MAX_VALUE);
    columnTwoConstraints.setHgrow(Priority.ALWAYS);

    gridPane.getColumnConstraints().addAll(columnOneConstraints,
columnTwoConstraints);

    return gridPane;
}

private void addUIControls(GridPane gridPane) {
    Label headerLabel = new Label("VIT Event Registration Form");
    headerLabel.setFont(Font.font("Arial", FontWeight.BOLD, 24));
    gridPane.add(headerLabel, 0,0,2,1);
    GridPane.setHalignment(headerLabel, HPos.CENTER);
    GridPane.setMargin(headerLabel, new Insets(20, 0,20,0));

    Label nameLabel = new Label("Full Name : ");
    gridPane.add(nameLabel, 0,1);

    TextField nameField = new TextField();
    nameField.setPrefHeight(40);
    gridPane.add(nameField, 1,1);

    Label emailLabel = new Label("Email ID : ");
    gridPane.add(emailLabel, 0, 2);

    TextField emailField = new TextField();
    emailField.setPrefHeight(40);
    gridPane.add(emailField, 1, 2);

    Label passwordLabel = new Label("Password : ");
    gridPane.add(passwordLabel, 0, 3);

    PasswordField passwordField = new PasswordField();
    passwordField.setPrefHeight(40);
    gridPane.add(passwordField, 1, 3);

    Label teamLabel = new Label("Team Name: ");
    gridPane.add(teamLabel, 0, 4);

    TextField teamName = new TextField();
    teamName.setPrefHeight(40);
    gridPane.add(teamName, 1, 4);

    Button submitButton = new Button("Submit");

```

```

        submitButton.setPrefHeight(40);
        submitButton.setDefaultButton(true);
        submitButton.setPrefWidth(100);
        gridPane.add(submitButton, 0, 5, 2, 1);
        GridPane.setHalignment(submitButton, HPos.CENTER);
        GridPane.setMargin(submitButton, new Insets(20, 0, 20, 0));

        submitButton.setOnAction(new EventHandler<ActionEvent>() {
            @Override
            public void handle(ActionEvent event) {
                if(nameField.getText().isEmpty()) {
                    showAlert(Alert.AlertType.ERROR, gridPane.getScene().getWindow(),
"Form Error!", "Please enter your name");
                    return;
                }
                if(emailField.getText().isEmpty()) {
                    showAlert(Alert.AlertType.ERROR, gridPane.getScene().getWindow(),
"Form Error!", "Please enter your email id");
                    return;
                }
                if(passwordField.getText().isEmpty()) {
                    showAlert(Alert.AlertType.ERROR, gridPane.getScene().getWindow(),
"Form Error!", "Please enter a password");
                    return;
                }

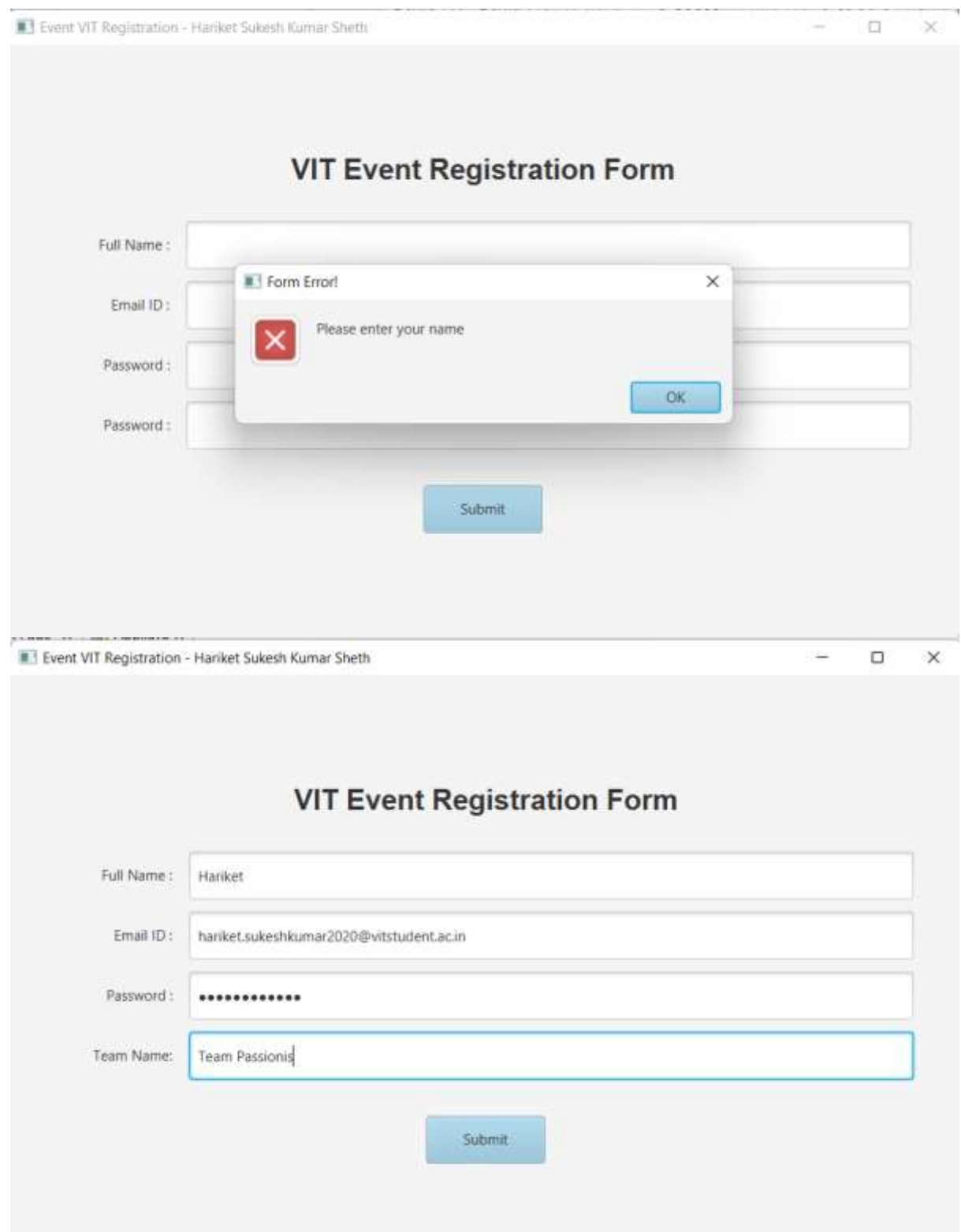
                showAlert(Alert.AlertType.CONFIRMATION,
gridPane.getScene().getWindow(), "Registration Successful!", "Welcome " +
nameField.getText());
            }
        });
    }

    private void showAlert(Alert.AlertType alertType, Window owner, String title,
String message) {
        Alert alert = new Alert(alertType);
        alert.setTitle(title);
        alert.setHeaderText(null);
        alert.setContentText(message);
        alert.initOwner(owner);
        alert.show();
    }

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

```

OUTPUT



Event VIT Registration - Hariket Sukesh Kumar Sheth

VIT Event Registration Form

Full Name :

Email ID :

Password :

Password :

Form Error!

Please enter your name

OK

Event VIT Registration - Hariket Sukesh Kumar Sheth

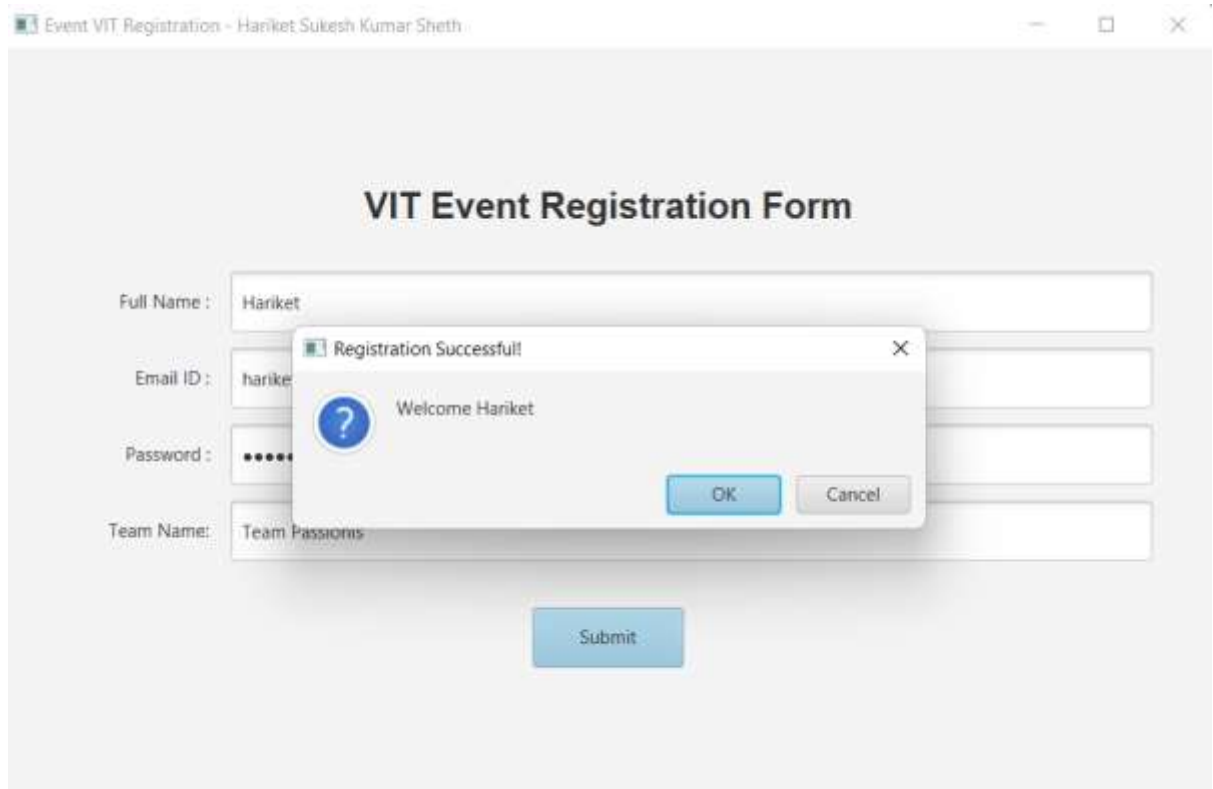
VIT Event Registration Form

Full Name :

Email ID :

Password :

Team Name:



3. Create JavaFX Application for various layouts

a. HBox

```
package com.mycompany.mavenproject3;
import javafx.application.Application;
import javafx.scene.Scene;
import javafx.scene.control.*;
import javafx.scene.layout.*;
import javafx.stage.Stage;
import javafx.event.ActionEvent;
import javafx.event.EventHandler;
import javafx.scene.canvas.*;
import javafx.scene.Group;

public class App extends Application {
    public void start(Stage stage)
    {
        try {
            stage.setTitle("HBox");
            HBox hbox = new HBox();
            for (int i = 0; i < 10; i++) {
                hbox.getChildren().add(new Button("Button "
                    + (int)(i + 1)));
            }
            Scene scene = new Scene(hbox, 800, 300);
            stage.setScene(scene);
            stage.show();
        }
        catch (Exception e) {
            System.out.println(e.getMessage());
        }
    }
    public static void main(String args[])
    {
        launch(args);
    }
}
```

```
}  
}
```

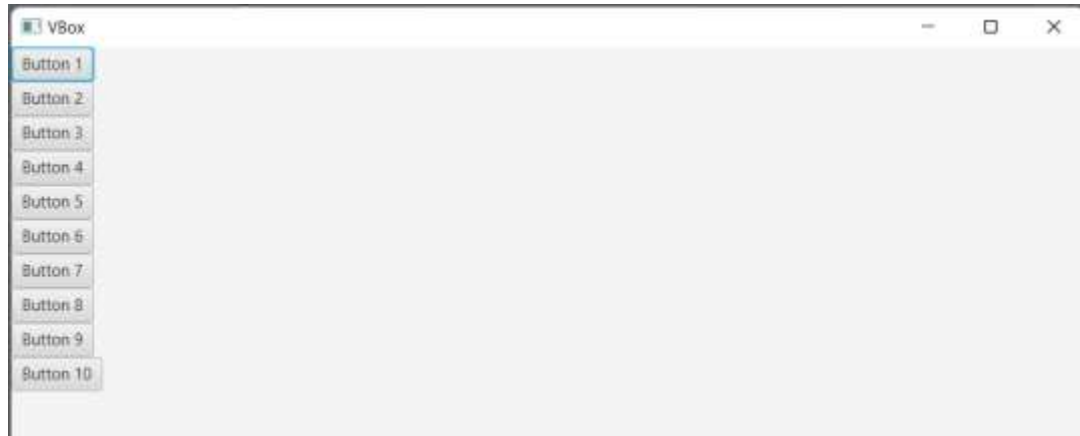
OUTPUT



b. VBox

```
package com.mycompany.mavenproject3;  
import javafx.application.Application;  
import javafx.scene.Scene;  
import javafx.scene.control.*;  
import javafx.scene.layout.*;  
import javafx.stage.Stage;  
import javafx.event.ActionEvent;  
import javafx.event.EventHandler;  
import javafx.scene.canvas.*;  
import javafx.scene.Group;  
  
public class App extends Application {  
    public void start(Stage stage)  
    {  
        try {  
            stage.setTitle("VBox");  
            VBox vbox = new VBox();  
            for (int i = 0; i < 10; i++) {  
                vbox.getChildren().add(new Button("Button "  
                    + (int)(i + 1)));  
            }  
            Scene scene = new Scene(vbox, 800, 300);  
            stage.setScene(scene);  
            stage.show();  
        }  
        catch (Exception e) {  
            System.out.println(e.getMessage());  
        }  
    }  
    public static void main(String args[])  
    {  
        launch(args);  
    }  
}
```

OUTPUT



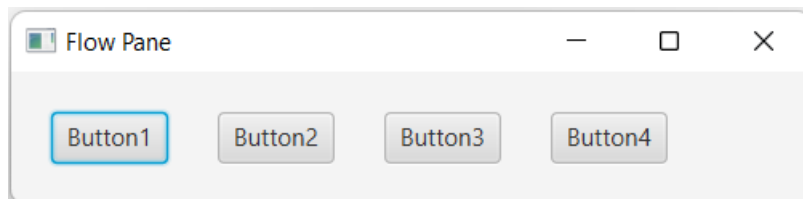
c. FlowPane

```
package com.mycompany.mavenproject3;
import javafx.application.Application;
import javafx.collections.ObservableList;
import javafx.geometry.Insets;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.layout.FlowPane;
import javafx.scene.shape.Sphere;
import javafx.stage.Stage;

public class App extends Application {
    public void start(Stage stage) {
        Button button1 = new Button("Button1");
        Button button2 = new Button("Button2");
        Button button3 = new Button("Button3");
        Button button4 = new Button("Button4");
        FlowPane flowPane = new FlowPane();

        flowPane.setHgap(25);
        flowPane.setMargin(button1, new Insets(20, 0, 20, 20));
        ObservableList list = flowPane.getChildren();
        list.addAll(button1, button2, button3, button4);
        Scene scene = new Scene(flowPane);
        stage.setTitle("Flow Pane");
        stage.setScene(scene);
        stage.show();
    }
    public static void main(String args[]){
        launch(args);
    }
}
```

OUTPUT



d. GridPane

```
package com.mycompany.mavenproject3;
import javafx.application.Application;
import javafx.geometry.Insets;
import javafx.geometry.Pos;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.layout.GridPane;
import javafx.scene.text.Text;
import javafx.scene.control.TextField;
import javafx.stage.Stage;

public class App extends Application {
    @Override
    public void start(Stage stage) {
        Text text1 = new Text("Email");
        Text text2 = new Text("Password");
        TextField textField1 = new TextField();

        TextField textField2 = new TextField();
        Button button1 = new Button("Submit");
        Button button2 = new Button("Clear");

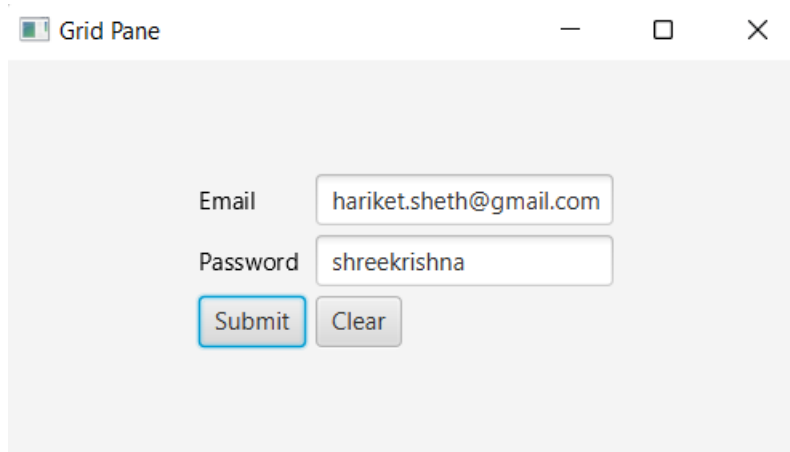
        GridPane gridPane = new GridPane();
        gridPane.setMinSize(400, 200);
        gridPane.setPadding(new Insets(10, 10, 10, 10));

        gridPane.setVgap(5);
        gridPane.setHgap(5);

        gridPane.setAlignment(Pos.CENTER);
        gridPane.add(text1, 0, 0);
        gridPane.add(textField1, 1, 0);
        gridPane.add(text2, 0, 1);
        gridPane.add(textField2, 1, 1);
        gridPane.add(button1, 0, 2);
        gridPane.add(button2, 1, 2);
        Scene scene = new Scene(gridPane);
        stage.setTitle("Grid Pane");

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

OUTPUT:



e. **BorderPane**

```
package com.mycompany.mavenproject3;
import javafx.application.Application;
import javafx.collections.ObservableList;
import javafx.scene.Scene;
import javafx.scene.control.TextField;
import javafx.scene.layout.BorderPane;
import javafx.stage.Stage;

public class App extends Application {
    @Override
    public void start(Stage stage) {
        BorderPane bPane = new BorderPane();

        bPane.setTop(new TextField("Top"));
        bPane.setBottom(new TextField("Bottom"));
        bPane.setLeft(new TextField("Left"));
        bPane.setRight(new TextField("Right"));
        bPane.setCenter(new TextField("Center"));

        Scene scene = new Scene(bPane);
        stage.setTitle("BorderPane Example");
        stage.setScene(scene);
        stage.show();
    }
    public static void main(String args[]){
        launch(args);
    }
}
```

OUTPUT:

