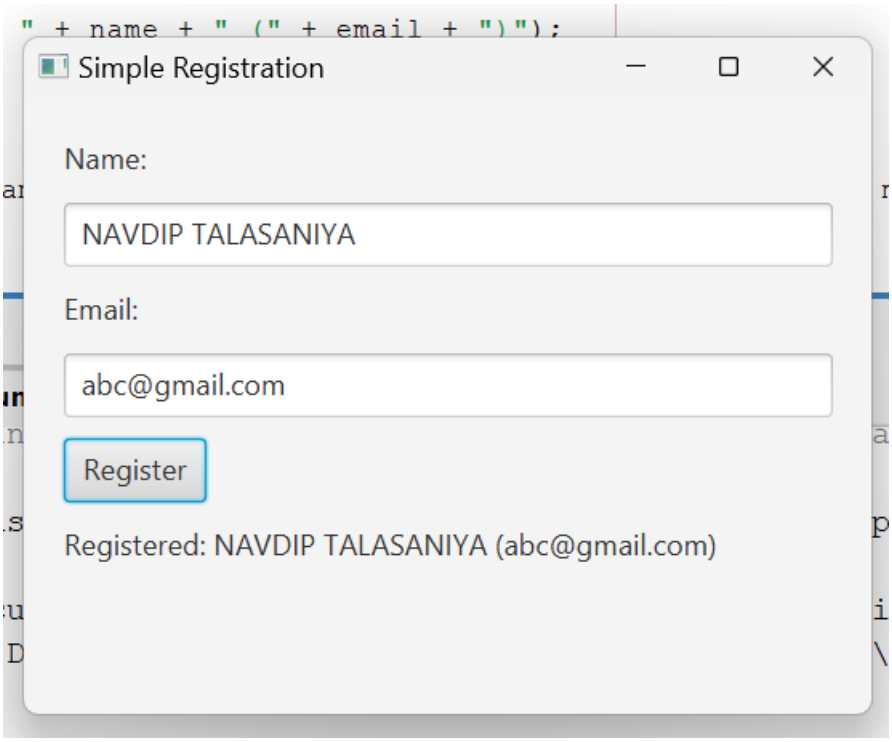
LAB Assignment – 7

Subject : Programming with Java

1. Create registration form using JavaFX.

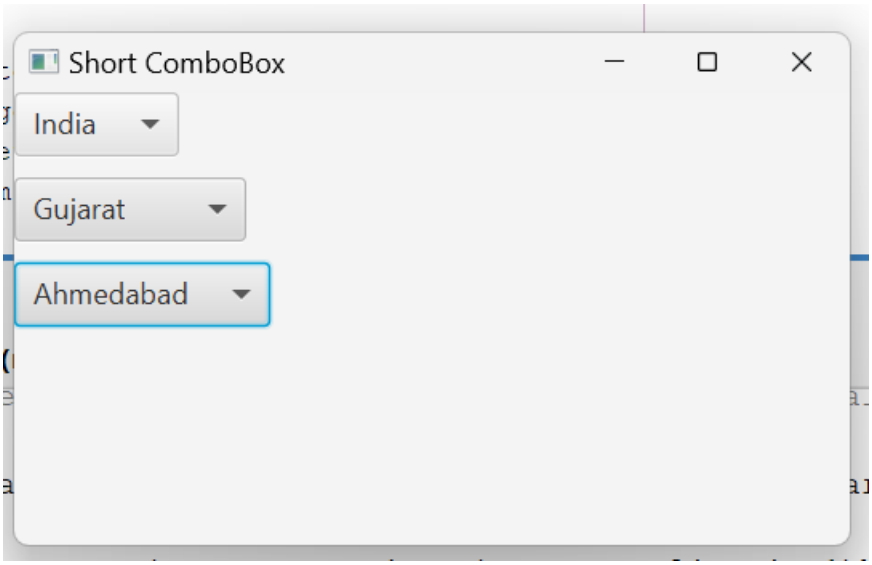
```
import javafx.application.Application;
import javafx.scene.Scene;
import javafx.scene.control.*;
import javafx.scene.layout.VBox;
import javafx.stage.Stage;

public class SimpleRegistrationForm extends Application {

    @Override
    public void start(Stage primaryStage) {
        // Create input fields
        Label nameLabel = new Label("Name:");
        TextField nameField = new TextField();

        Label emailLabel = new Label("Email:");
        TextField emailField = new TextField();

        Button registerButton = new Button("Register");
        Label messageLabel = new Label();

        // Action on button click
        registerButton.setOnAction(e -> {
            String name = nameField.getText();
            String email = emailField.getText();
            messageLabel.setText("Registered: " + name + " (" + email + ")");
        });

        // Layout
    VBox vbox = new VBox(10, nameLabel, nameField, emailLabel, emailField,
registerButton, messageLabel);
        vbox.setStyle("-fx-padding: 20;");

        // Scene and stage
        Scene scene = new Scene(vbox, 300, 200);
        primaryStage.setScene(scene);
        primaryStage.setTitle("Simple Registration");
        primaryStage.show();
    }

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



2. Create a JavaFX application with three ComboBoxes: Country, State, and City.Use event handlers to update the state and city ComboBoxes based on the user's selection.

```
import javafx.application.Application;
import javafx.scene.Scene;
import javafx.scene.control.ComboBox;
import javafx.scene.layout.VBox;
import javafx.stage.Stage;

public class ShortComboBoxApp extends Application {
    @Override
    public void start(Stage stage) {
        ComboBox<String> country = new ComboBox<>();
        ComboBox<String> state = new ComboBox<>();
        ComboBox<String> city = new ComboBox<>();

        country.getItems().addAll("India", "USA");
        country.setOnAction(e -> {
            state.getItems().setAll(country.getValue().equals("India") ?
                javafx.collections.FXCollections.observableArrayList("Gujarat"
, "Maharashtra") :
                javafx.collections.FXCollections.observableArrayList("Californ
ia", "Texas"));
            city.getItems().clear();
        });

        state.setOnAction(e -> {
            switch (state.getValue()) {
```

```
                case "Gujarat" -> city.getItems().setAll("Ahmedabad",
"Surat");
                case "Maharashtra" -> city.getItems().setAll("Mumbai",
"Pune");
                case "California" -> city.getItems().setAll("LA", "San
Diego");
                case "Texas" -> city.getItems().setAll("Houston", "Dallas");
            }
        });

        stage.setScene(new Scene(new VBox(10, country, state, city), 250,
150));
        stage.setTitle("Short ComboBox");
        stage.show();
    }

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



3. Create JavaFX small Application using UI Controls

```
import javafx.application.Application;
import javafx.scene.Scene;
import javafx.scene.control.*;
import javafx.scene.layout.VBox;
import javafx.stage.Stage;

public class SmallUIApp extends Application {
    public void start(Stage stage) {
        Label label = new Label("Enter your name:");
        TextField textField = new TextField();
```

```
        Button button = new Button("Say Hello");

        button.setOnAction(e -> {
            String name = textField.getText();
            Alert alert = new Alert(Alert.AlertType.INFORMATION);
            alert.setTitle("Greeting");
            alert.setHeaderText(null);
            alert.setContentText("Hello, " + name + "!");
            alert.showAndWait();
        });

        VBox root = new VBox(10, label, textField, button);
        root.setStyle("-fx-padding: 20;");
        stage.setScene(new Scene(root, 300, 150));
        stage.setTitle("Small JavaFX App");
        stage.show();
    }

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