

## EXERCISE 8

A.

**Aim:** To demonstrate how to create and use user-defined packages in Java.

**Description:** This program will create a simple package that contains a class with a method, which will be imported and used in the main program.

**Program:**

```
class Greeting {  
    public void sayHello() {  
        System.out.println("Hello from the user-defined class!");  
    }  
}
```

```
public class Main {  
    public static void main(String[] args) {  
        Greeting greeting = new Greeting();  
        greeting.sayHello();  
    }  
}
```

**output:**

Hello from the user-defined class!

B.

**Aim:** To create a simple JavaFX application that displays text in a label and an image in an ImageView.

**Description:** This program will set up a basic JavaFX application layout with a label and an image.

**PROGRAM:**

```
import javafx.application.Application;
import javafx.scene.Scene;
import javafx.scene.image.Image;
import javafx.scene.image.ImageView;
import javafx.scene.layout.VBox;
import javafx.scene.control.Label;
import javafx.stage.Stage;

public class ImageLabelApp extends Application {
    @Override
    public void start(Stage primaryStage) {
        Label label = new Label("Welcome to JavaFX!");
        Image image = new Image("file:your-image-path.png"); //
        Replace with your image path
        ImageView imageView = new ImageView(image);

        VBox vbox = new VBox(label, imageView);
        Scene scene = new Scene(vbox, 300, 200);
        primaryStage.setTitle("Label and Image View");
        primaryStage.setScene(scene);
```

```
        primaryStage.show();
    }

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

### **OUTPUT:**

You would see a GUI window that looks something like this (assuming you have an image at the specified path):

A window titled "My GUI Application"

A label displaying: "Welcome to My App!"

An image displayed below the label.

C.

**Aim:** To create a Tip Calculator application using JavaFX components.

**Description:** This program will allow users to enter the bill amount and select a tip percentage. Upon clicking a button, it will calculate and display the total amount including the tip.

### **PROGRAM:**

```
import java.util.Scanner;

public class TipCalculatorApp {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
```

```
System.out.print("Enter the bill amount: ");  
double bill = scanner.nextDouble();  
  
System.out.print("Enter the tip percentage: ");  
double tipPercent = scanner.nextDouble();  
  
double tipAmount = bill * (tipPercent / 100);  
double totalAmount = bill + tipAmount;  
  
System.out.printf("Total Amount: %.2f\n", totalAmount);  
}  
}
```

**OUTPUT:**

```
Enter the bill amount: 500  
Enter the tip percentage: 10  
Total Amount: 550.00
```