Question:

Ride-Sharing System (Polymorphism): Define an interface Vehicle with a method calculateFare(distance). Implement Car and Bike classes that calculate fare differently (e.g., Car: ₹10/km, Bike: ₹5/km). Use polymorphism to calculate the fare based on user input.

Vehicle.java:

```
package Vehicle;

public interface Vehicle {

	double Fare(double distance);

}
```

Car.java:

```
package Vehicle;

public class Car implements Vehicle{

	private double KM = 10.0;

	@Override
	public double Fare(double distance) {
		return distance * KM;
	}

}
```

Bike.java:

```
package Vehicle;

public class Bike implements Vehicle{
	private double KM = 5.0;

	@Override
	public double Fare(double distance) {
		return distance * KM;
	}
}
```

Main.java:

```
package Vehicle;
import java.util.*;
public class Main {

	public static void main(String[] args) {
		Scanner s = new Scanner(System.in);

		Vehicle vehicle = null;

		while (true) {
		System.out.println("1. Car (10 km)");
		System.out.println("2. Bike (5 km)");
		System.out.println("3. Exit");
		System.out.print("Enter your choice: ");
		int choice = s.nextInt();
```

```
            System.out.print("Enter distance: ");
            double distance = s.nextDouble();

            if (choice == 1) {
                vehicle = new Car();
            }
            else if (choice == 2) {
                vehicle = new Bike();
            }
            else if(choice == 3) {
             System.out.println("Exiting.");
                break;
            }
        double fare = vehicle.Fare(distance);
        System.out.println("Total Fare: " + fare);
             }
      }

}
```

OUTPUT: