Rajalakshmi Engineering College

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2024_28_III_OOPS Using Java Lab

2028_REC_OOPS using Java_Week 5_Q4

Attempt : 1
Total Mark : 10
Marks Obtained : 10

Section 1 : Coding

1. Problem Statement

You are working as a developer for CityCab, a taxi service company that wants to build a ride fare management system.

Each customer booking has:

A Booking ID (integer)A Customer Name (string)A Distance Travelled in km (double)

The fare calculation rules are:

Base Fare = 50 units (flat charge for every ride).Per km charge = 10 units/km.If the distance is greater than 20 km, a 10% discount is applied on the total fare.

You are required to implement this system using:

A class with attributes for booking details.A constructor to initialize booking details.Setter methods to update details if needed.Getter methods to retrieve details.Objects of the class to represent customer rides.

Finally, display each booking’s details and final fare.

Input Format

The first line of input contains an integer N, representing the number of bookings.

For each booking:

- The next line contains the booking ID (integer).
- The following line contains the customer's name (string).
- The next line contains the distance travelled (double).

Output Format

For each booking, print the details in the following format:

1. Booking ID: <booking_id>
2. Customer Name: <customer_name>
3. Final Fare: <final_fare> (rounded to one decimal place)

Refer to the sample output for formatting specifications.

Sample Test Case

Input: 1
1234
Rahul Sharma
15

Output: Booking ID: 1234
Customer Name: Rahul Sharma
Final Fare: 200.0

Answer

```
import java.io.*;
import java.util.*;
class Ridefare{
```

```
  private int id;
  private String name;
  private double distance;
  public Ridefare(int id,String name,double distance)
  {
     this.id=id;
     this.name=name;
     this.distance=distance;
  }
  public double fare()
  {
     double total_fare=0;
     double base_fare=50;
     double charge=distance*10;
     total_fare=base_fare+charge;
     if(distance>20)
     {
        double dis=0.1*total_fare;
        total_fare=total_fare-dis;
     }
     return total_fare;
  }
  public void display()
  {
     double total_fare=fare();
     System.out.println("Booking ID: "+id);
     System.out.println("Customer Name: "+name);
     System.out.printf("Final Fare: "+total_fare);
  }
}
public class Main{
  public static void main(String[] args){
     Scanner in =new Scanner(System.in);
     int n=in.nextInt();
     for(int i=0;i<n;i++)
     {
        int id=in.nextInt();
        in.nextLine();
        String name=in.nextLine();
        int distance=in.nextInt();
        Ridefare r=new Ridefare(id,name,distance);
        r.display();
```

```
    }
  }
}
```

Status : Correct *Marks : 10/10*