QUESTION 4 – Ride Fare Estimator (13 marks)

A cab service needs to estimate ride fares for customers.

Task:

1. Create a Ride class with:
    - distance (double, in km)
    - ratePerKm (double)
    - peakHour (bool)
    - Method calculateFare() that adds a 20% surcharge if it's peak hour
2. In main():
    - Create a list of **3 rides** with different distances and peak hour values
    - Print each ride's fare
    - Calculate and print the **total earnings** for all rides.

CODE :

```
class Ride {
 double distance; // in km
 double ratePerKm;
 bool peakHour;
 // this constructer is for assigning values to above ogject
 Ride(this.distance, this.ratePerKm, this.peakHour);
 // this method calculates fare based on distance, rate per km, and peak
hour status
 double calculateFare() {
   double fare = distance * ratePerKm;
   if (peakHour) {
     fare *= 1.2; // 20% surcharge
   }
   return fare;
 }
}

void main() {
 List<Ride> rides = [
   Ride(10.5, 15.0, true),
   Ride(7.2, 12.0, false),
   Ride(5.0, 20.0, true),
 ];

 double totalEarnings = 0;

 for (int i = 0; i < rides.length; i++) {
   double fare = rides[i].calculateFare();
   print('Ride ${i + 1} fare: ${fare.toStringAsFixed(2)} rupees');
   totalEarnings += fare;
 }

 print('Total earnings: ${totalEarnings.toStringAsFixed(2)} rupees');
}
```

Output:
cselab3@cselab3:~/dart exam$ dart run questionNumber4.dart
Ride 1 fare: 189.00 rupees
Ride 2 fare: 86.40 rupees
Ride 3 fare: 120.00 rupees
Total earnings: 395.40 rupees

Question 5: Movie Ticket Booking Summary (12 marks)

A cinema hall wants to generate a booking summary for customers.

Task:

1. Create a **list of maps** where each map contains:
    - movieName (String)
    - ticketsBooked (int)
    - pricePerTicket (double)
2. For each booking:
    - Calculate the total cost = ticketsBooked × pricePerTicket
3. Display a booking summary showing:
    - Movie name
    - Number of tickets booked
    - Price per ticket
    - Total cost for that booking

4. At the end, print the **grand total** earned from all bookings.

```
void main() {
 List<Map<String, dynamic>> bookings = [
   {
     'movieName': 'Avengers: Endgame',
     'ticketsBooked': 4,
     'pricePerTicket': 250.0,
   },
   {'movieName': 'Inception', 'ticketsBooked': 2, 'pricePerTicket':
200.0},
   {'movieName': 'Interstellar', 'ticketsBooked': 3, 'pricePerTicket':
220.0},
 ];

 double grandTotal = 0;

 for (var booking in bookings) {
   String movieName = booking['movieName'];
   int tickets = booking['ticketsBooked'];
   double price = booking['pricePerTicket'];
   double totalCost = tickets * price;
   grandTotal += totalCost;

   print('Movie: $movieName');
   print('Tickets Booked: $tickets');
   print('Price per Ticket: ${price.toStringAsFixed(2)}rupees');
   print('Total Cost: ${totalCost.toStringAsFixed(2)} rupees');
   print('-------------------------');
 }

 print('Grand Total Earned: ${grandTotal.toStringAsFixed(2)} rupees');
}
```

Output
cselab3@cselab3:~/dart exam$ dart run qeutionNumber5.dart
Movie: Avengers: Endgame

Tickets Booked: 4
Price per Ticket: 250.00rupees
Total Cost: 1000.00 rupees

Movie: Inception
Tickets Booked: 2
Price per Ticket: 200.00rupees
Total Cost: 400.00 rupees

Movie: Interstellar
Tickets Booked: 3
Price per Ticket: 220.00rupees
Total Cost: 660.00 rupees

Grand Total Earned: 2060.00 rupees