Design a Call taxi booking application

There are **n** number of taxi's.

(Example - 4)

The are p points

(Example - A, B, C, D, E, F)

- -All the points are in a straight line, and each point is 15kms away from the adjacent points.
- -It takes 60 mins to travel from one point to another
- -Each taxi charges Rs.100 minimum for the first 5 kilometers and Rs.10 for the subsequent kilometers.
- -For simplicity, time can be entered as absolute time. Eg: 9hrs, 15hrs etc.
- -All taxi's are initially stationed at A.
- -when a customer books a Taxi, a free taxi at that point is allocated
- -If no free taxi is available at that point, a free taxi at the nearest point is allocated.
- -If two taxi's are free at the same point, one with lower earning is allocated
- -Note that the taxi only charges the customer from the pickup point to the drop point. Not the distance it travels from an adjacent point to pickup the customer.
- -If no taxi is free at that time, booking is rejected

Design modules for						
1) Call taxi booking						
Input 1:						
Customer ID: 1						
Pickup Point: A						
Drop Point: B						
Pickup Time: 9						
Output 1:						
Taxi can be allotted.						
Taxi-1 is allotted						
Input 2:						
Input 2: Customer ID: 2						
·						
Customer ID: 2						
Customer ID: 2 Pickup Point: B						
Customer ID: 2 Pickup Point: B Drop Point: D						
Customer ID: 2 Pickup Point: B Drop Point: D						
Customer ID: 2 Pickup Point: B Drop Point: D Pickup Time: 9						
Customer ID: 2 Pickup Point: B Drop Point: D Pickup Time: 9 Output 2:						

so Taxi-2 from nearest point A which is free is allocated)							
Input 3:							
Customer ID: 3							
Pickup Point: B							
Drop Point: C							
Pickup Time: 12							
Output 3:							
Taxi can be allotted.							
Taxi-1 is allotted							
2) Display the Taxt Details							
Taxi No: Total Earnings:							
BookingID	CustomerII	) From	То	Pickuptime	DropTime	Amount	
Output:							
Taxi-1							
Total Earnings: Rs. 400							
BookingID CustomerID From To Pickuptime DropTime Amount							
1 1	A B	9	10	200			

(Note: Since Taxi-1 would not have completed its journey when second booking is done,

3 3 B C 12 13 200

Taxi-2

Total Earnings: Rs. 350

BookingID CustomerID From To Pickuptime DropTime Amount 2 2 B D 9 11 350