Implement the process of OLA ( any other taxi services) booking and processing

**Package CAB**

* Define an interface ***Travel agency*** which is ***having cab name, phone numbers ( all are final variables).*** With the display method***.***

**Package CUSTOMERS**

* ***Customer class*** is having details like ***name, mobile number address ( street, area, pin code)***

**Package SERVICES**

* ***Service class*** provides details about the different rides available **( mini, Prime,sedan Auto,Bike**…). Details to be stored are ***Service name, Amount(per hour).***
* ***Car class*** provides details about the different vehicles availableDetails to be stored are **V*ehicle number ,Type (*mini, Prime,sedan Auto,Bike *) , available( Y/N).***
* ***Driver class*** provides details about the drivers**. Driver will inherit the details from the vehicle** **class** and also store the additional details like  **Driver name, phone number.**

**Package VECHICLE BOOKING**

* **Booking class**  will provide the functionality to book the cab . It include the details ***Booking Id*** *( need to be generated automatically)* ***customer phone number, cab type ,date, time, Source, Destination, driver number, status( Cancelled, Attended)***
* ***Trip class*** *will contain details like* ***Trip Id (****need to be generated automatically),* ***booking Id , Driver phone number, starting time, end time, total amount, discount(if any), additional charges ( if any)****.*

*Constraints to be followed:*

1. While booking, It should be checked that whether the required cab type is available or not. If the service is available, then create a Booking object and make the available status of the vehicle as “N”. If not ask to select some other option.
2. Trip need to started 15 mins from the booking time else 1% discount will be given to customer in their total bill amount. Once the trip is started change the booking status as “ Attended”.
3. Add the functionality for the cancellation: which accepts the customer phone number and booking id . Then change the status of the booking object as “ cancelled”
4. If the trip duration exceeds 8 hours , add 100 as additional charges for every one hour.
5. If the customer is booking a second trip in the same week , give discount of 0.5% in their total amount.
6. If the trip is during 8 AM to 10AM and 5PM to 8 PM- PEAK HOURS , then increase the tariff of each cab type by 0.5 times ( for example Mini =150 per hour ( normal hour), 225( Peak hours))
7. Print the report
   1. All trip details ( customer name, driver name, vehicle number, date, amount)
   2. All Trips taken by specific driver details ( accept name)
   3. All bookings done by each customer.( for all customers- customer name, then all booking)
   4. All cancellations done by a specific customer ( accept the customer number )
   5. Calculate the average bill amount, for every month.
8. Print the cab bill for the customer ( all ) in the following format

Travels name:XXXXX Travels Agency Phone numbers: (as a comma separated)

Customer Name: customer: mobile number

Source :XXXXX Destination:XXXXX  
Start Time : End Time :

Date:

Total Number of hours:

Amount :

Discount:

Additional charges :

Total Amount:

Driver Name :xxxxxx Driver Phone number :XXXXXX

Vehicle Number :