Parking Management

A mall having a parking requires a system to track parking availability, occupancy and analysis.

* There can be n number of parkings
* Parkings will be categorized as 2-wheeler or 4-wheelers
* At a given time, manager should be able to see which parkings are available and which are occupied
* When a vehicle arrives, application should allot a parking slot to the vehicle
* At any time, manager should be able to see number of vacant slots
* Mall charges fees for the parking with following rates:
  + Four Wheelers:
    - For the first two hours, ₹30/hour
    - For remaining hours, ₹20/hour
    - If a car stays parked for more than 10 hours, add ₹100 per every 10 hours
  + Two Wheelers:
    - For the first two hours, ₹20/hour
    - For remaining hours, ₹10/hour
    - If a car stays parked for more than 10 hours, add ₹60 per every 10 hours
* When a vehicle checks out, the application should display amount payable, along with calculation details
* User should be able to retrieve all records for a given vehicle number. i.e. all past bills, history, charges, etc.
* Assuming, the mall owner is paying following amount as rent for each parking:
  + ₹1000/month for 2-wheelers parking
  + ₹2000/month for 4-wheelers parking
* Calculate profit/loss for each month, and each year