



# Requirement Analysis for Parking lot

- Design a parking lot system to support *N* cars/bikes
- Parking lot has a number associated, which increases as we go far from entry point and starts with 1
- Automated ticketing should happen
- When a car comes we take color of the car and registration number of the car
- We assign the nearest parking lot and also allow leaving the car from that lot
- Once the car leaves we mark the slot available again
- A bike can be parked in any nearest empty spot.
- whereas a car can be only parked in the nearest empty car spot.
- There are configurable number of slots for electric cars and bikes also.
- On exit user should be able to pay via cash, card or fastag.
- Support of multiple floors.
- Pricing per hour diff for bikes and cars

Functionalities to support:

1. Given a vehicle, we should be able to park it and get the ticket;
2. Given a vehicle we should be able to unpark it and pay
3. Given a spot you should be able to find the vehicle parked in it.
4. Given a vehicle number, find the slot in which it is parked
5. return registration numbers of all cars of a particular color
6. Return all spot/slot numbers where cars of a particular color is parked.



