# Parking Lot - LLD

## Requirements:

1) It should have different type of vehicle, depending on that different parking spots (One to One mapping)
2) Entry and Exit gate
3) Ticket generation
4) Finding Parking spot -> isAvailable() and -> parkCar()
5) Calculation Price
6) Payment
7) Multiple floors

## Classes/Interface:

- ParkingSpot

  - parkingSpot ID
  - parkingSpot Type
  - IsAvailable

- Vehicle

  - typeOfVehicle
  - vehicle Number

- Ticket

  - Ticket ID
  - parkingSpot ID
  - parkingSpot Type
  - arrival time

- Payment

  - amount
  - mode of payment

- Parking Strategy

  - Default
  - NearestToGate

- Entry Gate
  - Book parking spot
  - generate ticket

- Exit Gate

  - Calculate Price
  - Free the spot

- Payment Strategy

  - UPI
  - Card
  - Cash

**Parking Lot:**

Entry:
Book parking lot
generate ticket

Exit:
Calculate Price / Make
payment

Free the spot

## Class Diagram: