

Parking lot system

## Problem Statement

Vehicles  $\rightarrow$  car, bike, truck

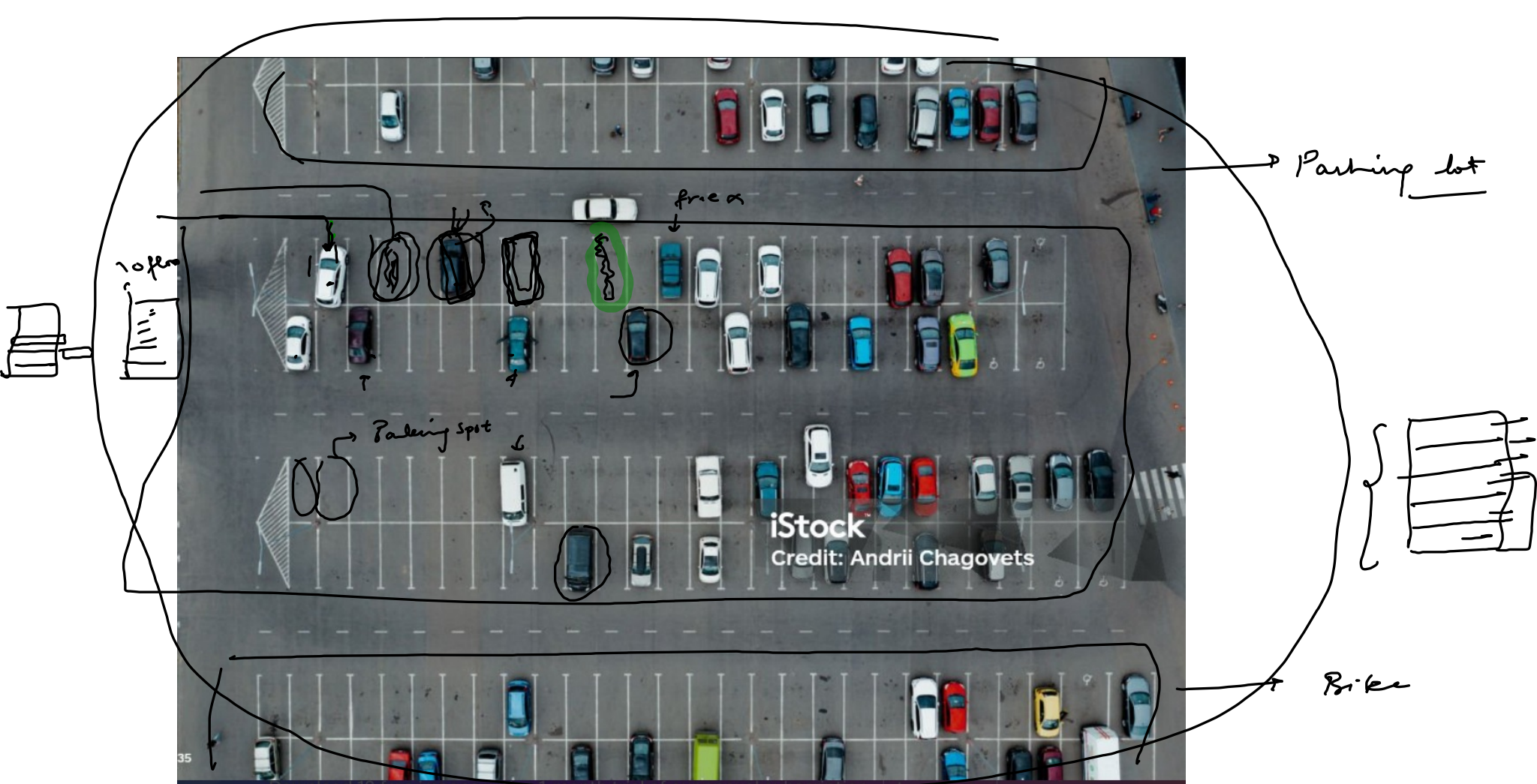
$\hookrightarrow$  Parking lot is an open area designated for parking  
cars / bike / truck

$\hookrightarrow$  We will design a parking lot where a certain number of  
vehicles can be parked for a certain amount of time

$\hookrightarrow$  The parking lot can have multiple slots / multiple floors.  
Each slot can have a single vehicle parked in it

last steps

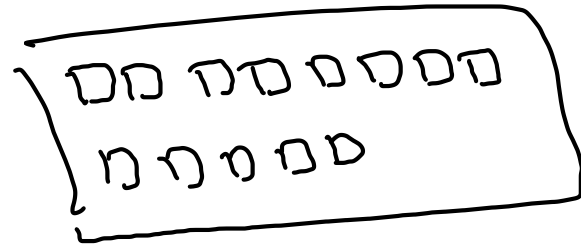
$\hookrightarrow$  Payment system



5 mins →

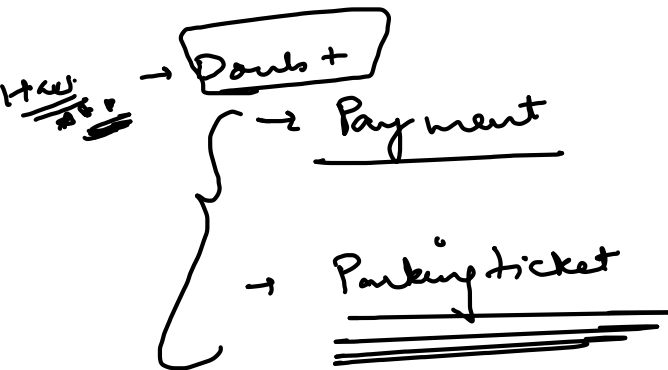
## Requirements

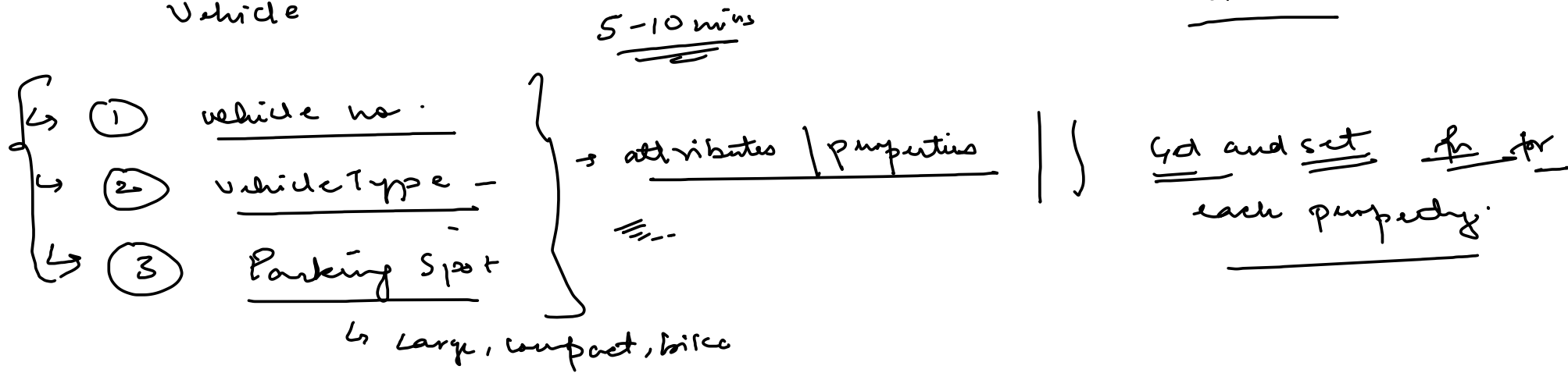
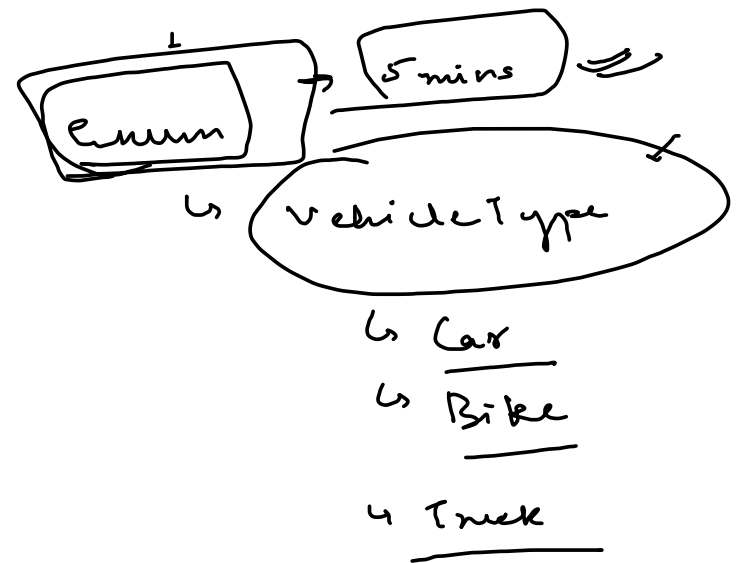
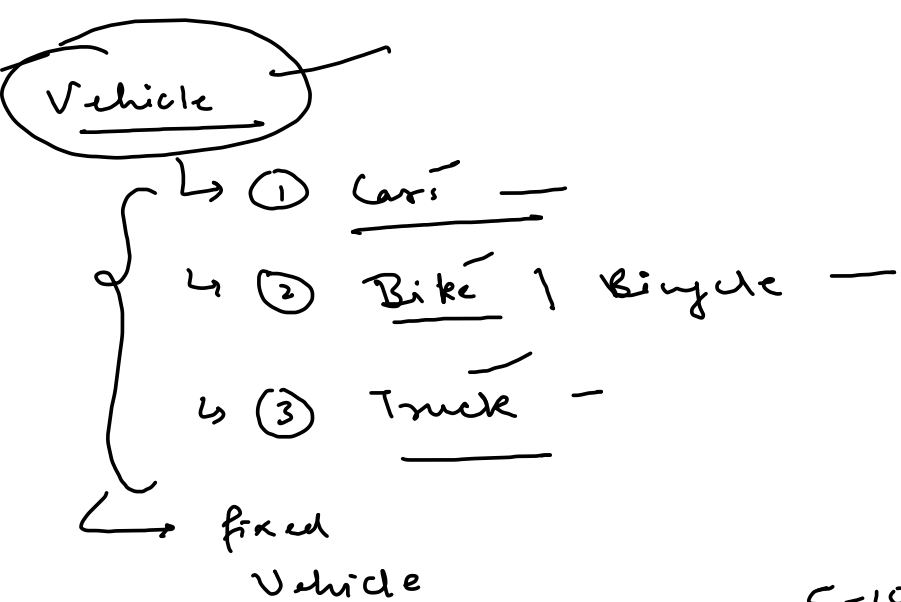
→ Parking lot → floor



no. 4. → Parking spot

→ vehicle.





## Parking Spot class

↳ ① ParkingSpotType

↳ ② is free → boolean

↳ ③ Vehicle

↳ ②

↳ get or set fn.

→ Truck, Car, Bike

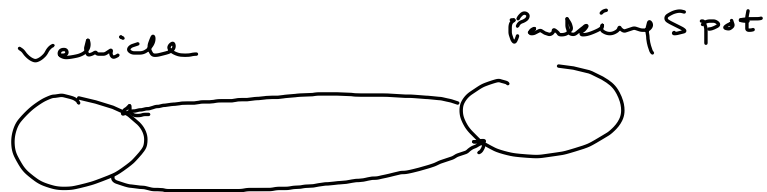
→ Parking Spot Type

↳ Large Spot → Truck

↳ Compact Spot → Car

↳ Bike Spot → Bike

→ ①



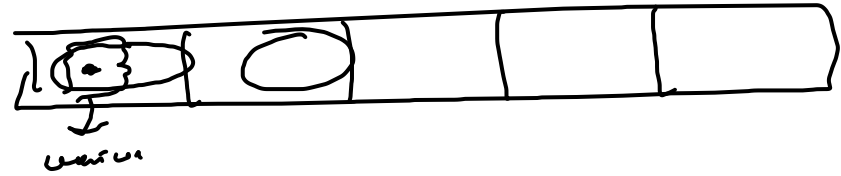
# Parking lot

↳ large slot  $\rightarrow 500$

↳ compact slot  $\rightarrow 100 - 1 = 99$

↳ bike spot  $\rightarrow 15$

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large  $< >$

compact

bike

# Parking a vehicle

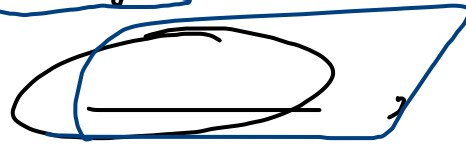
Truck  $\rightarrow 2$

$\hookrightarrow$  a) Need to decide type of vehicle

$\hookrightarrow$  (b)  $\rightarrow$  spots of a particular category is available or not.

$\hookrightarrow$  not  $\rightarrow$  message.

$\hookrightarrow$  available  $\rightarrow$



TRUCK  
4's

CAR  
2's

BIKE  
4's

decrease the size of

slot by 1  
(category)