

# Parking lot

## Parking Floor

```

ParkingSpots: Map<ParkingSpotType,
ParkingFloorID: String
displayBoard: displayBoard

+ getParkingFloorID(): String
+ getLotOfParkingSpot(): Map<
ParkingSpotType,
+ getAvailableSpot (vehicle: vehicle)
+ ShowDisplayBoard
+ getSpotTypeOfVehicle (vehicle: vehicle)
getInUseSpotID (vehicleType)
    
```

```

- instance: ParkingLot
- ParkingFloor: Array<ParkingFloor>
- entryPanel: Array<EntryPanel>
- exitPanel: Array<ExitPanel>

+ getInstance(): ParkingLot
+ vacateParkingSpot (ParkingFloorID: ParkingSpotType)
+ getLotOfParkingFloor
+ getLotOfEntryPanel
+ getLotOfExitPanel
    
```

```

EntryPanel
entryPanelID: String
+ getEntryPanelID(): String
+ getEntryTicket (vehicle: vehicle)
+ generateEntryTicket: vehicle,
ParkingFloorID: String,
ParkingSpotID: String
    
```

```

ExitPanel
exitPanelID: String
+ getExitPanelID(): String
+ checkOut (ParkingTicket: ParkingTicket)
+ calculatePrice (ParkingSpotType: ParkingSpotType)
+ calculateDurationInTime (ParkingTicket: ParkingTicket)
    
```

| ParkingSpotType | VehicleType |
|-----------------|-------------|
| Disabled        | car         |
| Compact         | Motorcycle  |
| Large           | Truck       |
| Motorcycle      | ElectricCar |
| ElectricCar     | Van         |

```

ParkingSpot
ParkingSpotID: String
isSpotAvailable: boolean
Vehicle: vehicle
ParkingSpotType: ParkingSpotType

+ isSpotFree(): boolean
+ getParkingSpotType(): ParkingSpotType
+ getParkingSpotID(): String
+ getVehicleID(): String
+ assignVehicleToSpot: void
+ vacateVehicleFromSpot: void
    
```

```

DisplayBoard
+ displayMessage (ParkingSpotType: ParkingSpotType,
freeSpot: no)
+ void
    
```

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HourlyCost
hourlyCost: Map<ParkingSpotType,
getCost (ParkingSpotType)
    
```

```

Payment
    
```

```

MotorCycleSpot
ElectricCar
DisabledSpot
    
```

```

Vehicle
+ getVehicleNumber(): String
+ type: VehicleType
+ getVehicleType: String
+ getVehicleRegNumber: String
    
```

```

ParkingTicket
ParkingTicketID: String
VehicleType: VehicleType
VehicleRegistrationNumber: String
ParkingSpotID: String
ParkingFloorID: String
StartTime: number
EndTime: number
amount: number

+ getStartTime (currentDate: Date)
+ getEndTime (date: Date)
+ getStartTime(): Date
+ getEndTime(): Date
+ getAmount(): number
+ getEndTime (currentDate: Date): Date
    
```

CarSpot DisabledSpot  
MotorCycleSpot ElectricCar  
Car Truck ElectricCar  
MotorBike