Parking Lot Case Study -
Group 8
Case Flow Diagram

ParkingSpotType

COMPACT
LARGE
HANDICAPPED
TWOWHEELER
ELECTRIC

enumeration

CheckpointType

ENTRY
EXIT
INFO

enumeration

Time

Date d
String time

double diff(Time t)

ParkingLot

Database db
Admin admin
ArrayList<Employee>
employeeList ArrayList<Ticket>
allTickets
ArrayList<Checkpoint>
allCheckpoints ArrayList<Floor>
allFloors
double priceOfElectricityPerHour
double[] compactPrices
double[] largePrices
double[] handicappedPrices
double[] twowheelerPrices
double[] electricPrices

boolean addEmployee (Employee e)
boolean removeEmployee (Employee e)
boolean searchEmployeeByID (Employee e)
boolean searchEmployeeByUsername (String username, String password)

Spot

ParkingLot pl
int id
String name
ParkingSpotType t
int floor
boolean isAvailable

Entry Point

ParkingLot pl

void run()
ParkingSpotType userInput()
Spot searchForSpot (ParkingSpotType t)
void generateTicket (ParkingSpotType t)

Database

ParkingLot pl
String db_name
String url

loadDatabase(ParkingLot pl)
updateDatabase(ParkingLot pl)
Connection connect()
int count_tables()
void setupDatabase()
void deleteAllTables()
Admin getAdmin()

Floor

ParkingLot pl
int[] NumberOfSpots
ArrayList<Spot>
allSpotsOnthisFloor
int floorNo

Checkpoint

ParkingLot pl
int ID
String name
CheckpointType type
int assignedEmployeeID
int floorNumber

Exit Point

ParkingLot pl

void run()
Ticket userInput()
void checkTicket (Ticket t)
void payTicket (Ticket t)

Ticket

ParkingLot pl
int ID
Spot s
Time entry
Time exit
boolean isPaid
String
VehicleNumberPlate

double computeBill()
double computeBill (double hours)

Info Portal

ParkingLot pl

void run()
Ticket userInput()
void checkTicket (Ticket t)
void payTicket(Ticket t)

FloorDisplayGUI

FloorDisplayGUI(Floor floor)

ElectricPanelGUI

ParkingLot p
Time start
boolean flag
double price

void run()
void actionPerformed(Action Event e)

ChangePasswordGUI

ParkingLot pl
Employee emp

void run()
void actionPerformed(ActionEvent e)

LoginGUI

ParkingLot pl
String username
password

void run(ParkingLot pl)
void actionPerformed (ActionEvent e)

AdminOptionsGUI

ParkingLot p
final int maxNumberOfFloors
double pe
double[] cp
double[] lp
double[] hp
double[] tp
double[] ep
int numberOfFloors
ArrayList<Floor> inputFloorMatrix
int[][] floorMatrix

AdminOptionsGUI(ParkingLot pl)
void setUpFloorMatrix()
void run()
public void refreshFloorDisplay(int n)
void checkUpdate()
void removeDeletedCheckpoints(int n)

Customer

ParkingLot pl

void run()

Employee

boolean loginstatus
int id
String username
String password
double dues

void run()

Admin

ParkingLot pl
boolean loginstatus
String username
String password

void addEmp()
void removeEmp()
void addOrRemoveEmployee()
void addCheck()
void removeCheck()
void addOrRemoveCheckpoint()
void menu()