

Case Study-1

Parking Lot

System Requirements (Excepted and can be added more)

1. The parking lot should have multiple floors where customers can park their vehicles.
2. The parking lot should have multiple entry and exit points.
3. Customers can collect a parking ticket from the entry points and can pay the parking fee at the exit points on their way out.
4. Customers can pay the tickets at the automated exit panel or to the parking attendant.
5. Customers can pay via both cash and credit cards.
6. Customers should also be able to pay the parking fee at the customer's info portal on each floor. If the customer has paid at the info portal, they don't have to pay at the exit.
7. The system should not allow more vehicles than the maximum capacity of the parking lot. If the parking is full, the system should be able to show a message at the entrance panel and on the parking display board on the ground floor.
8. Each parking floor will have many parking spots. The system should support multiple types of parking spots such as Compact, Large, Handicapped, Motorcycle, etc.
9. The Parking lot should have some parking spots specified for electric cars. These spots should have an electric panel through which customers can pay and charge their vehicles.
10. The system should support parking for different types of vehicles like car, truck, van, motorcycle, etc.
11. Each parking floor should have a display board showing any free parking spot for each spot type.
12. The system should support a per-hour parking fee model. For example, customers have to pay Rs 20 for the first hour, Rs 10 for the second and third hours, and Rs 5 for all the remaining hours.

Written By Charan Cs19b032 and Roopa :

We have used OOPs concepts and designed Parking Lot using different Classes

Discussion:

We have divided our work equally on our interests

Charan :Admin and customer commands

Greesmitha and Harshitha : floors and booking parking Spots

Roopa Shree : Fare controller

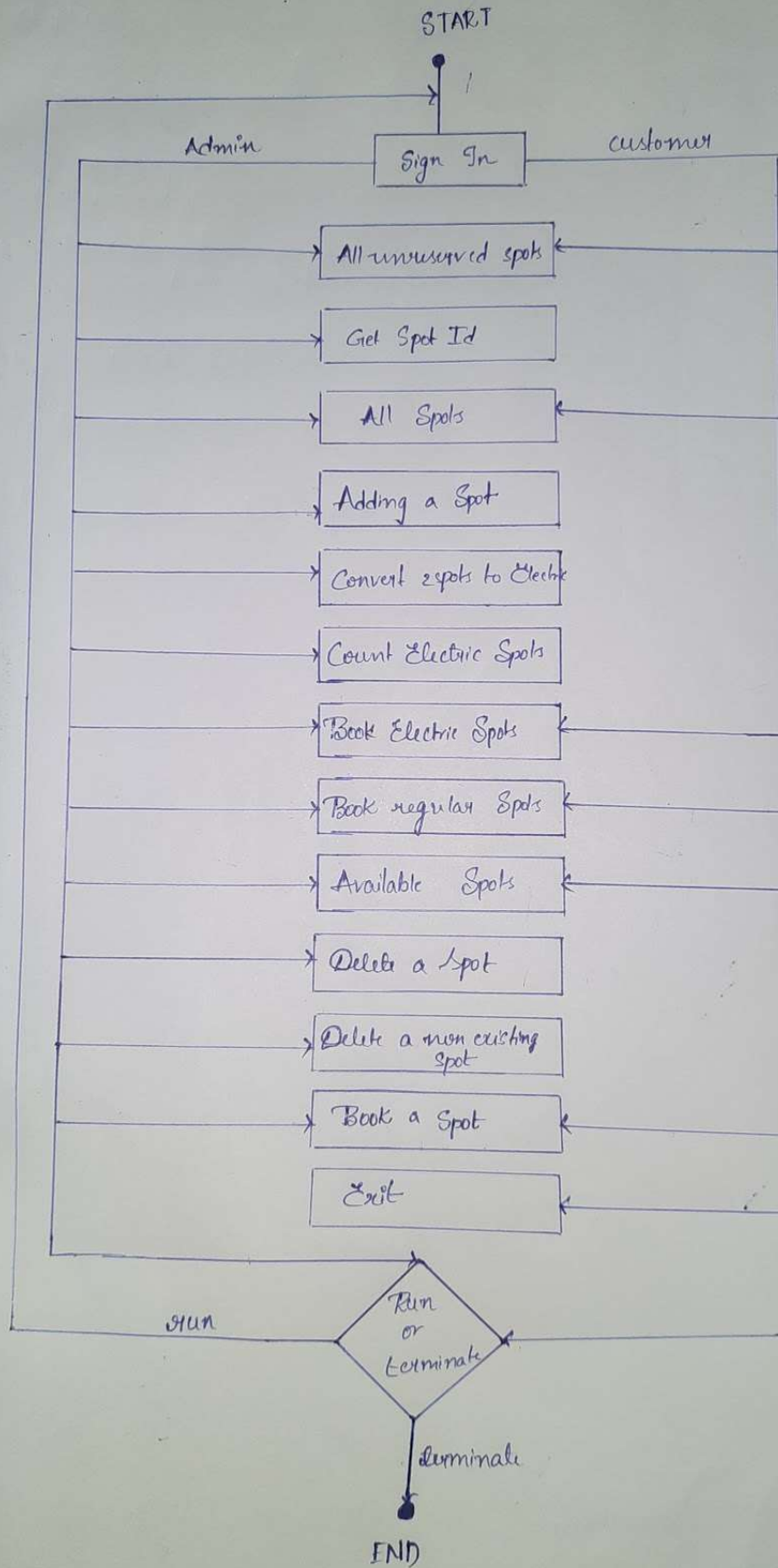
Sandeep : Entry and Exits

But Sandeep, Greesmitha and Harshitha haven't done their work

So i(Charan_) had done Admin and customer commands , floors and booking parking Spots

And Roopa had done Fare controller ,Entry and Exits.

- Flow Chart



Classes Used:

1. Floor
2. Spot
3. Entry panel
4. Exit panel
5. Fare controller
6. Main

Floor :

1. It has ability to change no.of spots;
- 2.Type of spots

Spot :

1. It gives no. of spots.
2. Type of spot
3. Reservation Status

Main :

1. All operations can be done through this.
2. It has Admin and Customer performing commands.

Entry Panel:

1. Collects information from customer or admin.

Exit Panel:

1. Collects information from customer and pass them to fair controller.

Fair controller:

1. Calculates time spent and demands certain amount.

