Software Engineering Project

ONLINE CAR PARKING RESERVATION SYSTEM

Group-5

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Problem Statement

Currently, most of the existing car parking systems are manually managed and a little inefficient. In urban areas, where the number of vehicles is higher as compared to the availability of parking spaces, a lot of time being wasted in searching for parking locations. Hence online booking parking system is a proposed method that users can reserve their parking places using the web. Providing a simple web application for parking vehicles. Booking for a parking slot at home. Can search nearby places using Google map. Easy payment system. Parking owners can add their own parking places. Make it easy to automate parking owners and customers.

What we aim for?

Fast response time.

Fast recovery from the disconnection.
24x7 availability.

The user should be provided with a guide for the same.

Increasing the customer base

Data Security
Atomicity

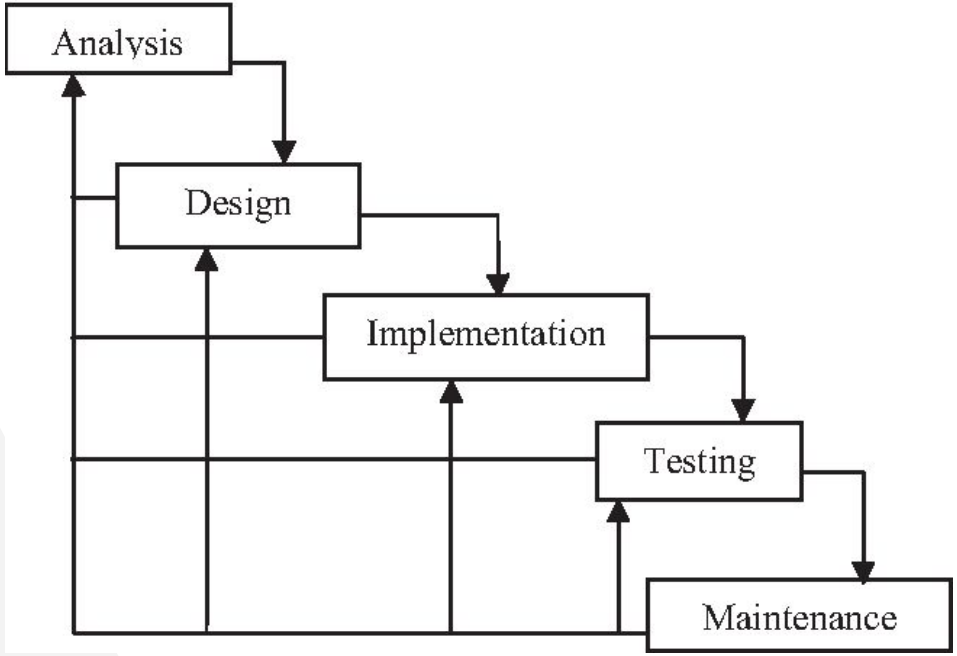
Availability of information as required.

Booking/Cancellation /Edits allowed.
Easy Payment.
Feedback generation.

Type of Process Model

- We went for Iterative Waterfall model as it provides feedback paths from every phase to its preceding phases, which is the main difference from the classical waterfall model.
- Initially we opted for Classical Waterfall but since it was too rigid and gave us very few options for testing hence, iterative waterfall was the best option.
- It is simple and easy to understand and widely used. It have a feedback system which leaves room for improvement.

Type of Process Model



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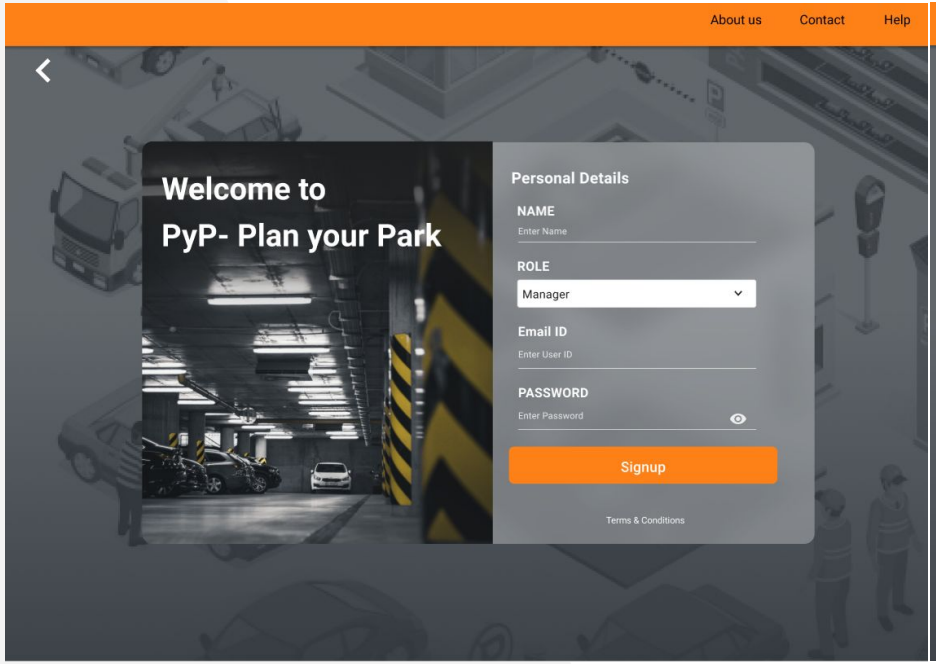
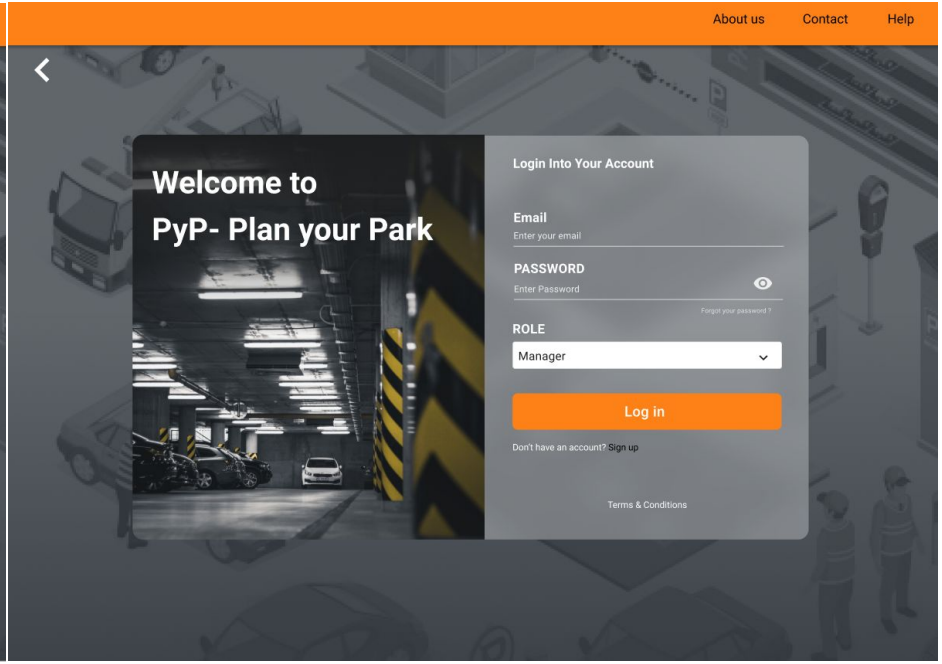
Frontend Progress

- We have focused more on UI for our project. We have created the designs for web pages and have created the prototype.
- We have designed the following webpages :
  - Home page
  - Login, Signup
  - User Pages: Searching for the slot, Booking, Adding vehicle details
  - Owner Pages: Dashboard to edit and add the parking slots, Viewing the customer status
  - Payment and receipt

- The Goal will be to make the website User friendly and Responsive.

Frontend Progress





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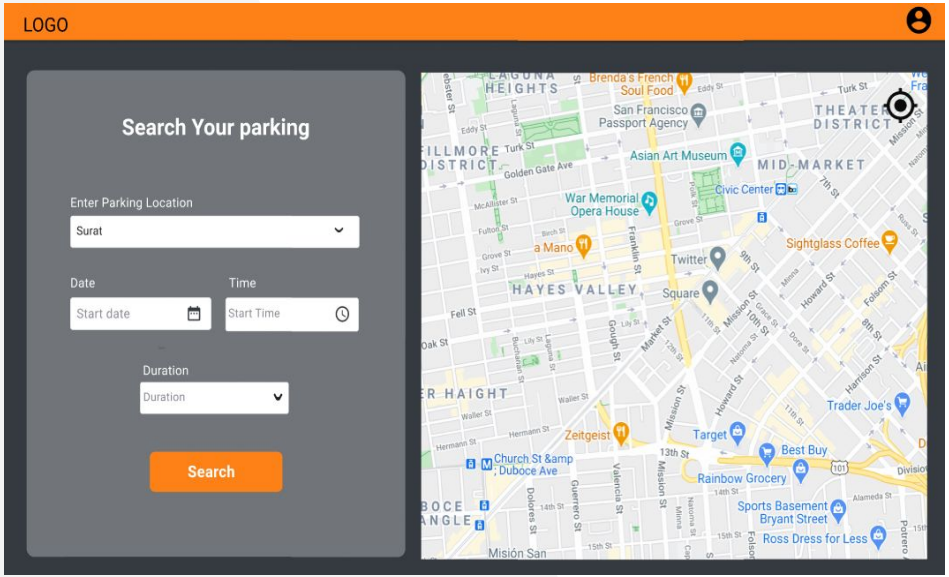

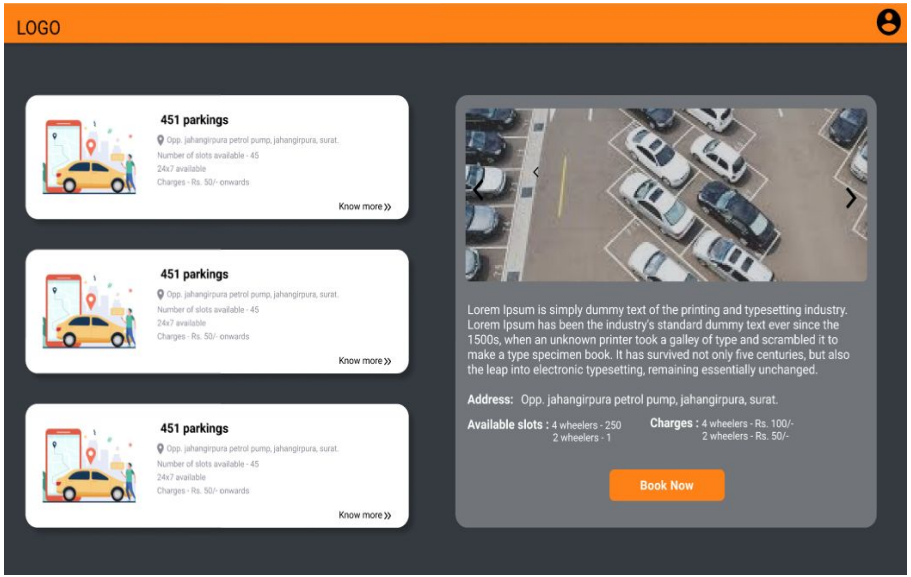

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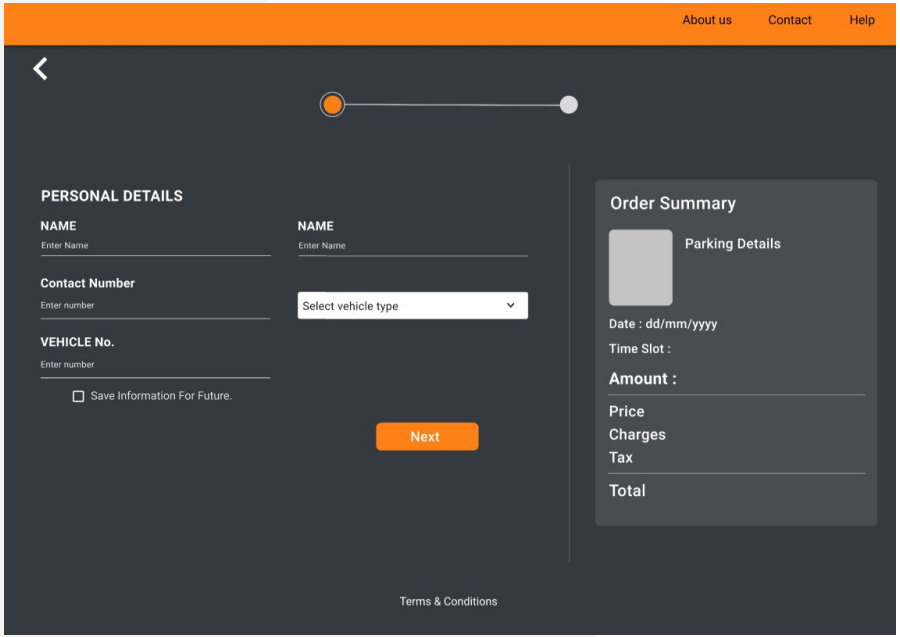

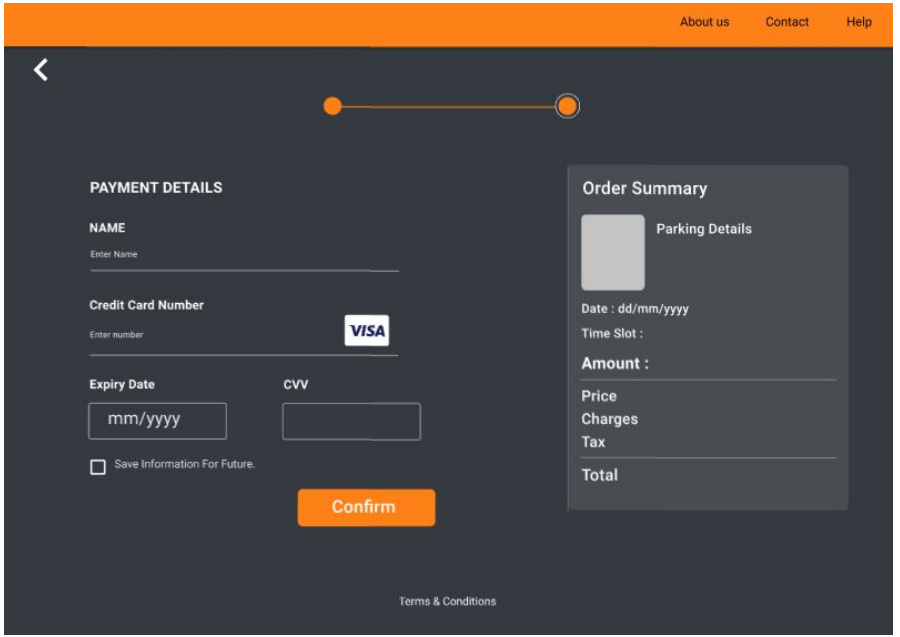

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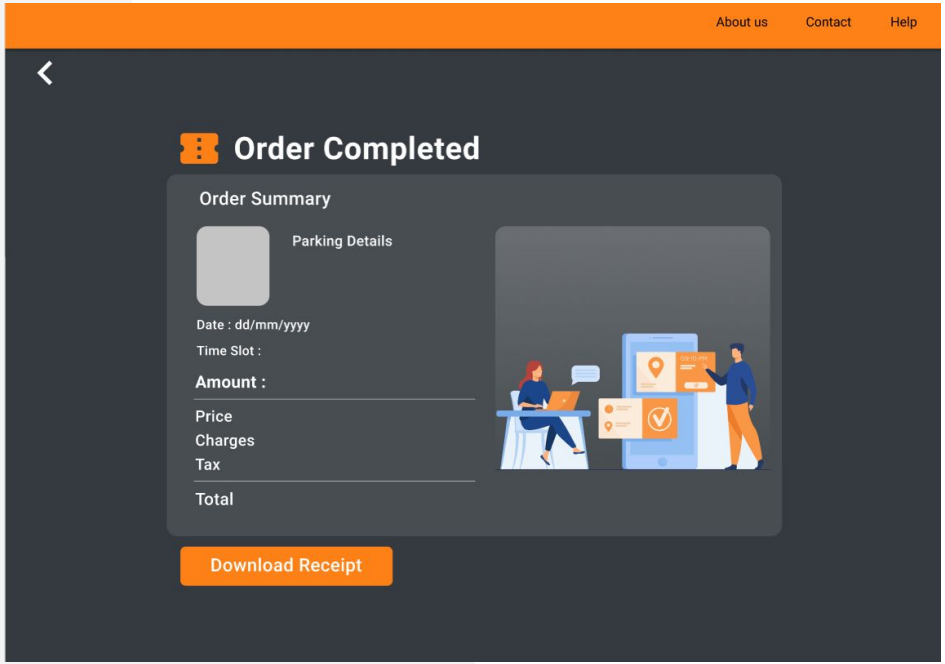

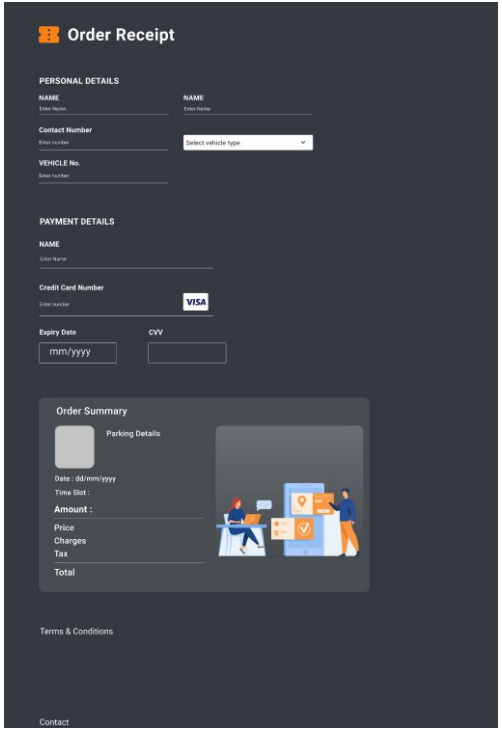

Backend Progress

- Register, Login and Logout authentication with the help of JWT and passport,google-oauth20.
- The parking owner can add parking location on map.
- Users can search parking location on map and see their current location on map.
- User can book slot for start time and duration on the slots which are not previously booked.

What are we planning to do more?

- To make the web application more user friendly we can add the review and rating options for the each parking slots so that the user can get the better idea for the same.
- We can also provide user guidance in the menu page to give an idea about the working of the application.
- The parking owner will be allowed to view the customer stats and also the reviews provided by them.

THANK YOU!