
Car Rental System

Guidelines:

1. All the pages must be strictly like a single page application
2. Use Java - 1.8 version
3. Use React JS for front end - Use CDN links and not with node
4. Use Java Servlets
5. Use Tomcat to host the application - 8.5.73 version
6. Use PSQl for the database
7. Use Eclipse as the editor for Java development
8. Use VS code as the editor for react JS development
9. Follow the "Code - Best Practice" and develop the project

Requirements:

Phase 01:

1. Create usernames and passwords manually in the DB [for 3 Users]
2. Implement authentication
 - Login page
3. Searching the cars can be done
 - Search and Manage cars page - Display the rooms and provide search options.
4. Search cars by price range, date, types like SUVs, Sedans, etc
5. We can add, edit, and remove the cars
 - Search and Manage cars page - remove cars - small button near each entry, add & edit books - have a separate page [Add cars page, Edit cars page].

Phase 02:

1. Have 2 roles - Member & Receptionist [There can be only one Receptionist]

- account - created initially, Multiple member accounts]
2. Give sign up option for the new Member
- **Sign up page** - **Have an option on login page**
 3. The Receptionist can only manage members [Search, Edit details, Deletion, Addition of members]
- **Search and Manage members page** - **Only for Receptionist - remove member - small button near each entry, add & edit member - have a separate page [Add member page, Edit member page].**
 4. The members and Receptionist can edit their details [Collect all meta data like mail, name, address etc]
- **My accounts page**
 5. The Receptionist can cancel or terminate the membership of the members
 6. The Receptionist can add, edit, and remove the cars
- **Search and Manage cars page** - **These actions are only accessible to the Receptionist**
 7. The Receptionist and the members can book, reserve a car
- **Search and Manage cars page** - **Once we click the car entry - show a pop up**
 8. Bookings can also be cancelled
 9. A car might be booked, but the members can reserve it
 10. There should be a maximum limit (2) on how many cars a member can book at a particular time.

Phase 03:

1. Store the credentials of the users - in encrypted format
2. Implement and restore sessions for the logged in user
3. Give an option to store the credentials of the user in cache [Remember me]
[Remember me option near login button in - Login page]
4. There should be a maximum limit (10) on how many days a member can keep a car.
5. Implement rental charges - and give mail notifications for the Member and the Receptionist
- Return cars page - When the Receptionist accesses this page, have a selector for selecting the member - When the member accesses this, give a list of all the checked in rooms
6. Give mail notifications for the Member whenever the reserved car becomes available, as well as when the car is not returned within the due date & time.

7. The Receptionist should maintain a log to track all events related to a car
Car history page - Only for Receptionist - must be redirected from the
Search and Manage cars page
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