MERN Stack Capstone

Cab Service

Objective

To create a cab booking application for the employees of an organization using the concepts of MERN stack

Motivation

Real-World Scenario:

A multinational company notices a decline in the daily usage of internal cab service. They conduct an internal survey in which they find that the booking process is hectic and inefficient. Also, the offline allocation of cabs to the employees seems tedious.

They are now looking for an online cab booking application, which will help them get rid of the manual efforts and allow the employees to book cabs efficiently.

Create a robust cab booking application for them.

Deliverables

Features of the project:

- Admin should be able to define the area where the cabs can be booked.

- Admin should be able to view and maintain all the contact details.

- Customers should be able to book a cab service instantly.

- Customers should be able to see the areas where the cabs are available.

Industry Relevance

Skills used in the project and their usage in the industry are as given below:

- **NodeJS:** Node.js is a cross-platform, open-source server environment that runs on operating systems like Windows, Linux, Unix, and macOS. It runs single-threaded, non-blocking, and asynchronous programming, which is memory efficient.

- **ExpressJS:** Express.js is a backend web application framework of NodeJS used for building RESTful APIs.

- **MongoDB:** MongoDB is an open-source NoSQL database which stores data in a type of JSON format called BSON format.

- **Mongoose:** Mongoose is a JavaScript based object-oriented third-party library for MongoDB. It is used to create connection between MongoDB and NodeJS runtime environment.

Industry Relevance

Skills used in the project and their usage in the industry are as given below:

- **React:** React is the library for web and native user interfaces. Build user interfaces out of individual pieces called components written in JavaScript.

- **React Router**: React Router is a powerful library for handling routing in React applications.

- **Git:** Git is a distributed version control system used for tracking changes in source code during software development.

- **Git Clone**: Git clone is a command which Creates a copy of a remote repository on the local machine.

Tasks

Creation of the application will involve:

1. Plan the project and initialize a new React project using create-react-app or another preferred method.

2. Create UI components for Home page

3. Create UI components for: Booking form.

4. Create UI components for User authentication (login, signup).

5. Implement React Router to navigate between different pages.

6. Design and implement a form for users to book cabs, including date and time selection.

7. Initialize a new NodeJS project using npm, Set up an Express server.

8.Design MongoDB schemas for users, cabs, and bookings.

Project Reference

Task 1: Build a strong MERN Foundation: Lesson 1 and 2

Task 2,3,4: Build a strong MERN Foundation: Lesson 3 and 4

Task 5, 6: Develop a Dynamic Frontend with React: Lesson 3, 4, and 5

Task 7: Develop a Reliable Backend with Node and Express: Lesson 4, 5

Task 8: Develop a Reliable Backend with Node and Express: Lesson 1, 2, 3

Output Screenshot
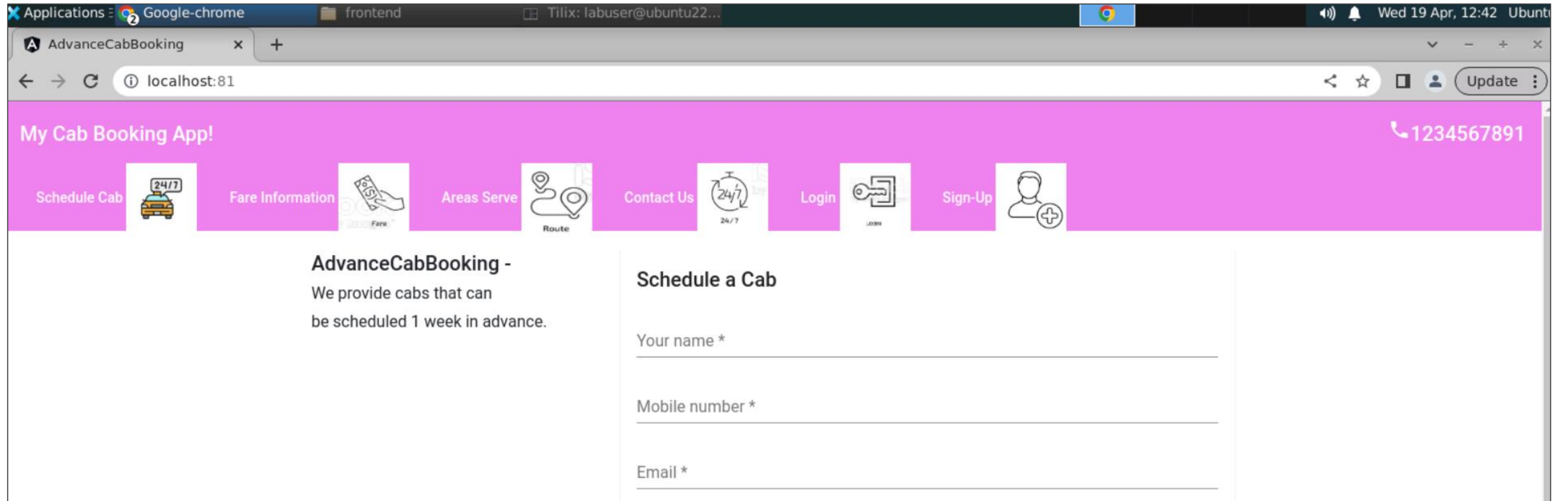
Output Screenshot

Output Screenshot

localhost/fare

Imported From Fire...

My Cab Booking App!

Schedule Cab   Fare Information   Areas Serve   Contact Us   Login   Sign-Up
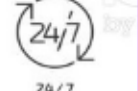
Our Taxi Tariffs

Vehicle Type	Rate/KM	Driver Betta Additional Charge
One Way Tariff		
SEDAN	Rs. 13/KM	RS. 300
MUV	Rs. 17/KM	RS. 400
Only Innova	Rs. 18/KM	RS. 500
Round Trip Tarriff		
SEDAN	Rs. 13/KM	RS. 300
MUV	Rs. 14/KM	RS. 400

TERMS AND CONDITIONS

Initial Km and final Km will be calculated from Customer Location.
Lowest one way Drop 130 km for all the cars.
Round trip Smallest 300 Kms Per day
Toll, State Tax, Permit will be Bourne by the customer for Round trips as per Travels policy.
Driver Bata for Round trips Rs.300/- per day for sedan and Mini, Rs.400/- for SUV
Hill station charges Rs. 300 for mini and sedan, Rs. 400/- for SUV
Extra hour charges Rs.125/- for Mini, sedan and SUV
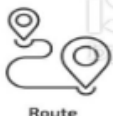Night charges Additional Rs.300/- for round trip

Output Screenshot

Output Screenshot

My Cab Booking App!

Schedule Cab   Fare Information   Areas Serve   Contact Us   View ScheduleCabForms   Logout

AdvanceCabBooking -

We provide cabs that can
be scheduled 1 week in advance.

Schedule a Cab

Your name *
RajKumar

Mobile number *
9867856789

Email *
raj@gmail.com

Pickup Date *
4/19/2023

Pickup Time *
01:57 PM

Passengers *
4

Pickup Location *
JP Nagar Industrial Area Road, 3rd Phase, J. P. Nagar, Bengaluru, Karnataka 560078, India

Drop Location *
Hebbal Flyover, Bayanna Layout, Hebbal, Bengaluru, Karnataka 560024, India

Submit   Clear

Thank You