

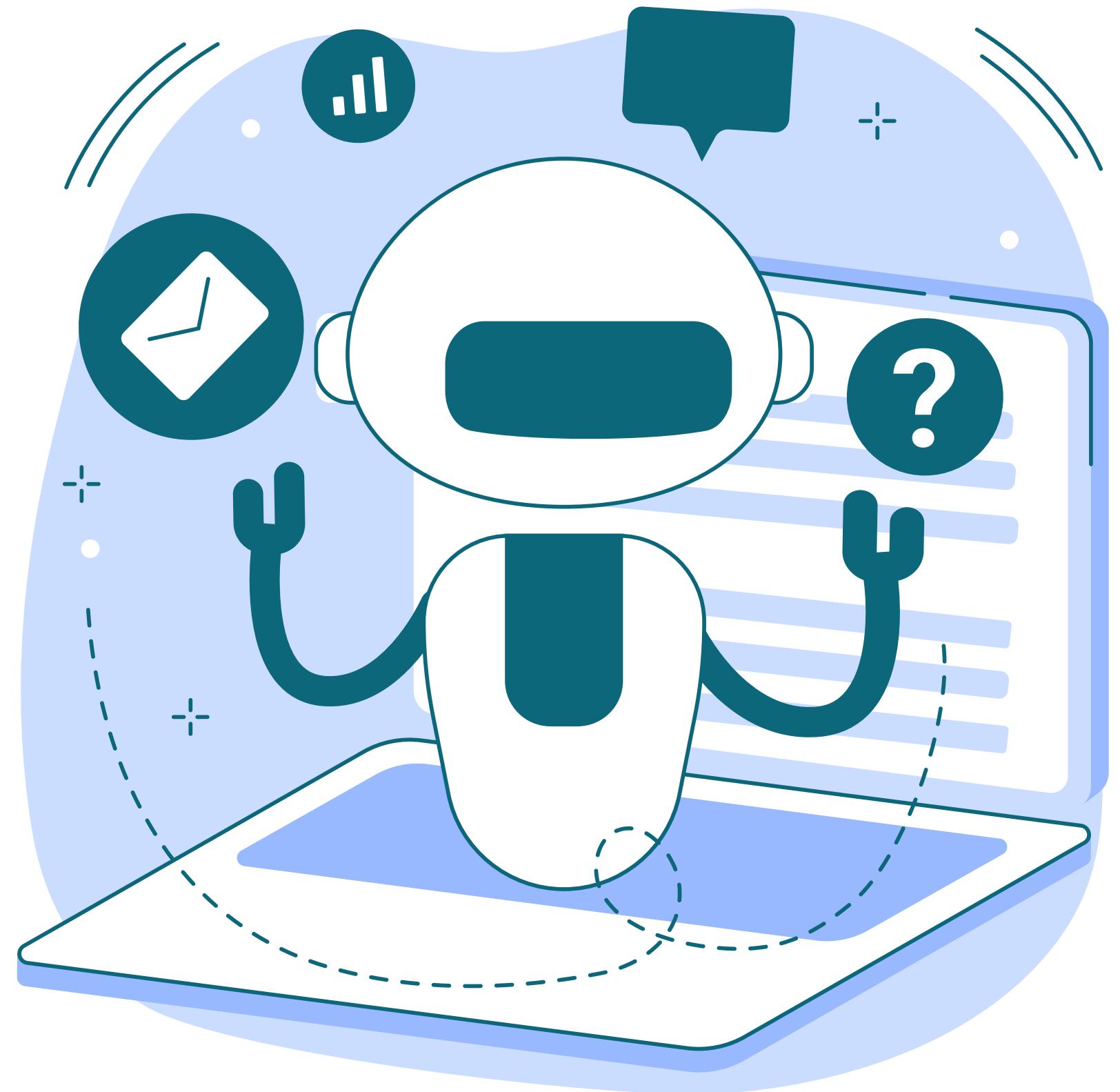
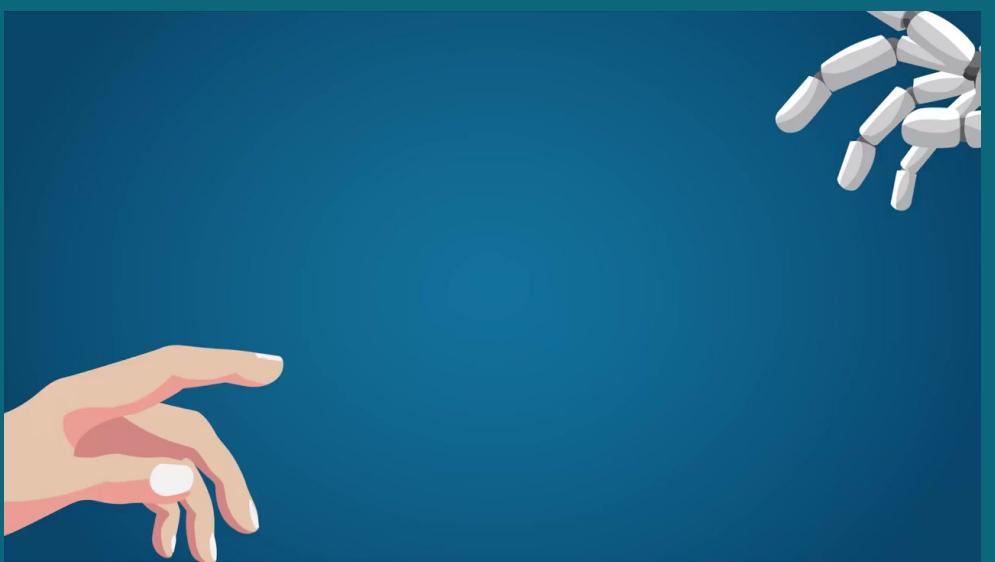


# HUMAN COMPUTER Interaction

CST-Group 04

# HUMAN COMPUTER INTERACTION

A **discipline** that organizes interaction between man and computing devices to make it **more successful**

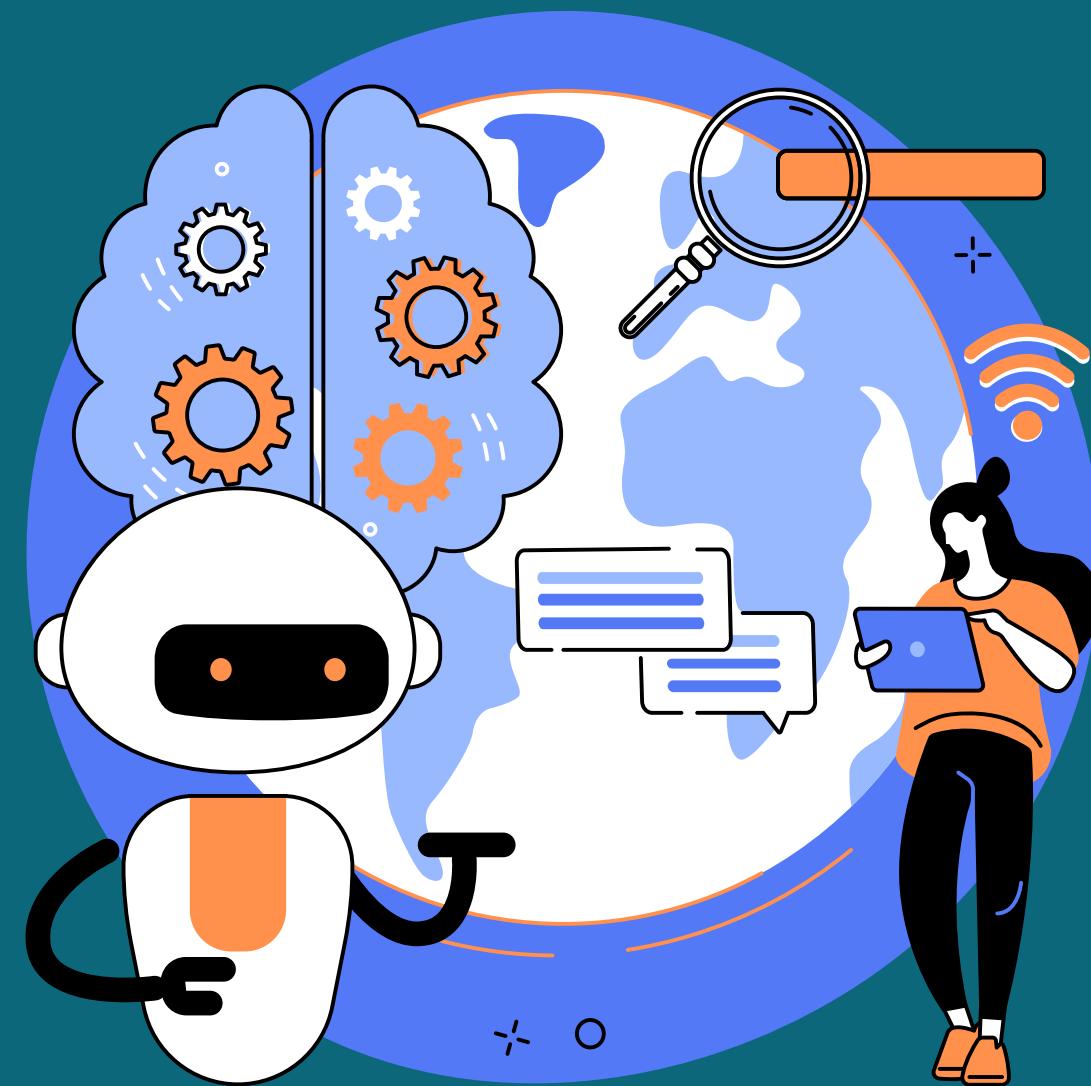


# EVOLUTION OF HCI BASED ON OUR PROJECT

# INTRODUCTON OF OUR PROJECT

Our project involves creating a platform that connects service station owners and customers for vehicle services. Service station owners can create accounts, manage station details, and handle employee information. Customers can search for service stations based on preferences, location, and time slots, and book appointments.

# IMPORTANCE OF HCI

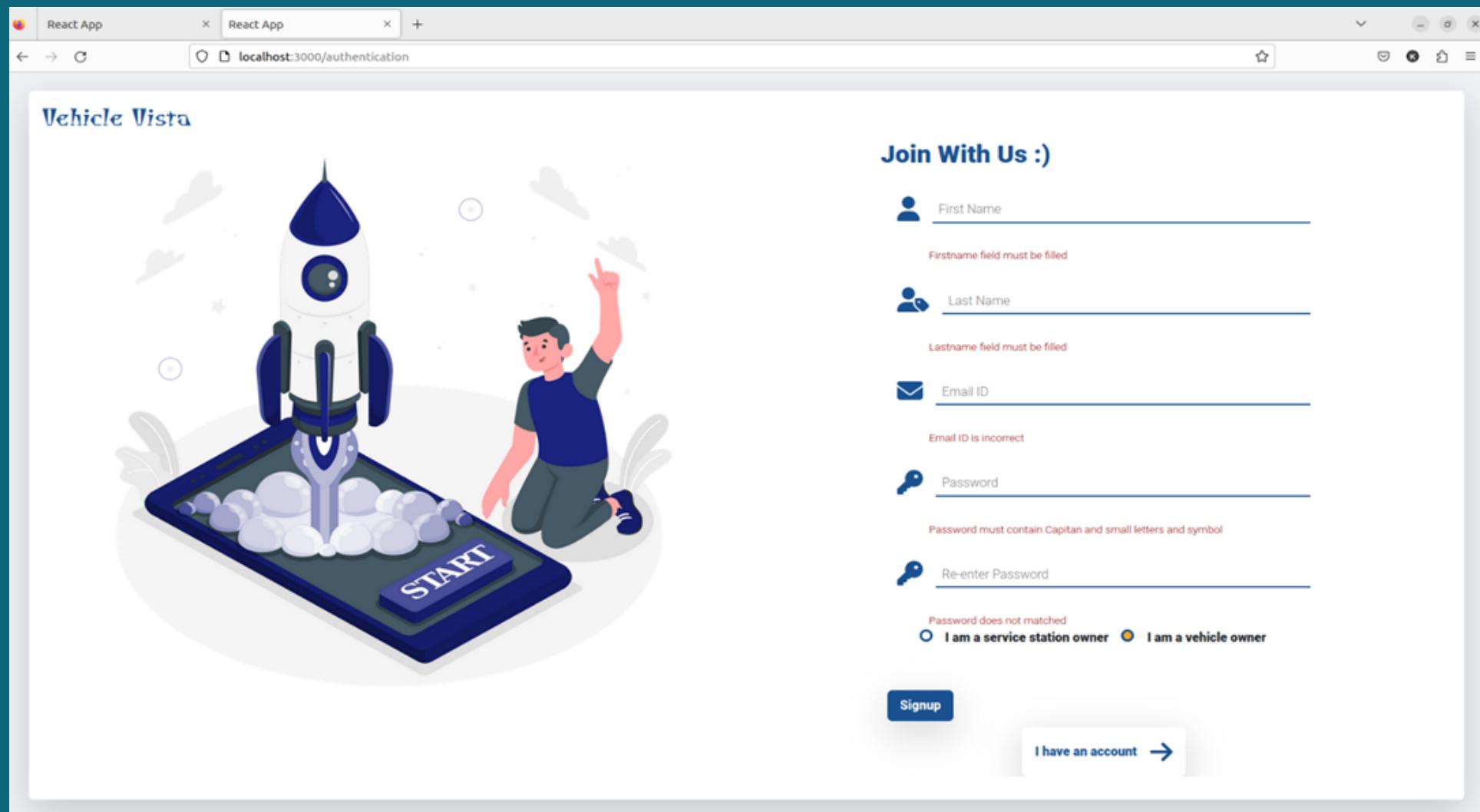


- 1 Enhanced User Experience
- 2 Increased Productivity
- 3 Accessibility and Inclusivity
- 4 Adaptability to User Needs
- 5 Business Competitiveness
- 6 Emotional Connection
- 7 Usability and Learnability
- 8 Cross-Platform Consistency

# LET'S SEE AN EXAMPLE

# 1.HCI GOLS

## Safety



Secure Authentication

Data Encryption

Guidelines and Policies

Error Prevention and Recovery

# User-Friendliness

## 1. Intuitiveness and Simplicity UI Design

The image shows a 'Chat message' window with a clean, minimalist design. At the top left is a close button ('X'). Below it, the title 'Chat message' is displayed in a bold, dark blue font. On the left side, there's a 'To:' label followed by a dropdown menu containing the text 'Service Station'. The main area features two input fields: one for 'To whom' (with a person icon) and another for 'Type your message...' (with a speech bubble icon). A large blue 'Send' button is located at the bottom left. The overall layout is spacious and easy to navigate.

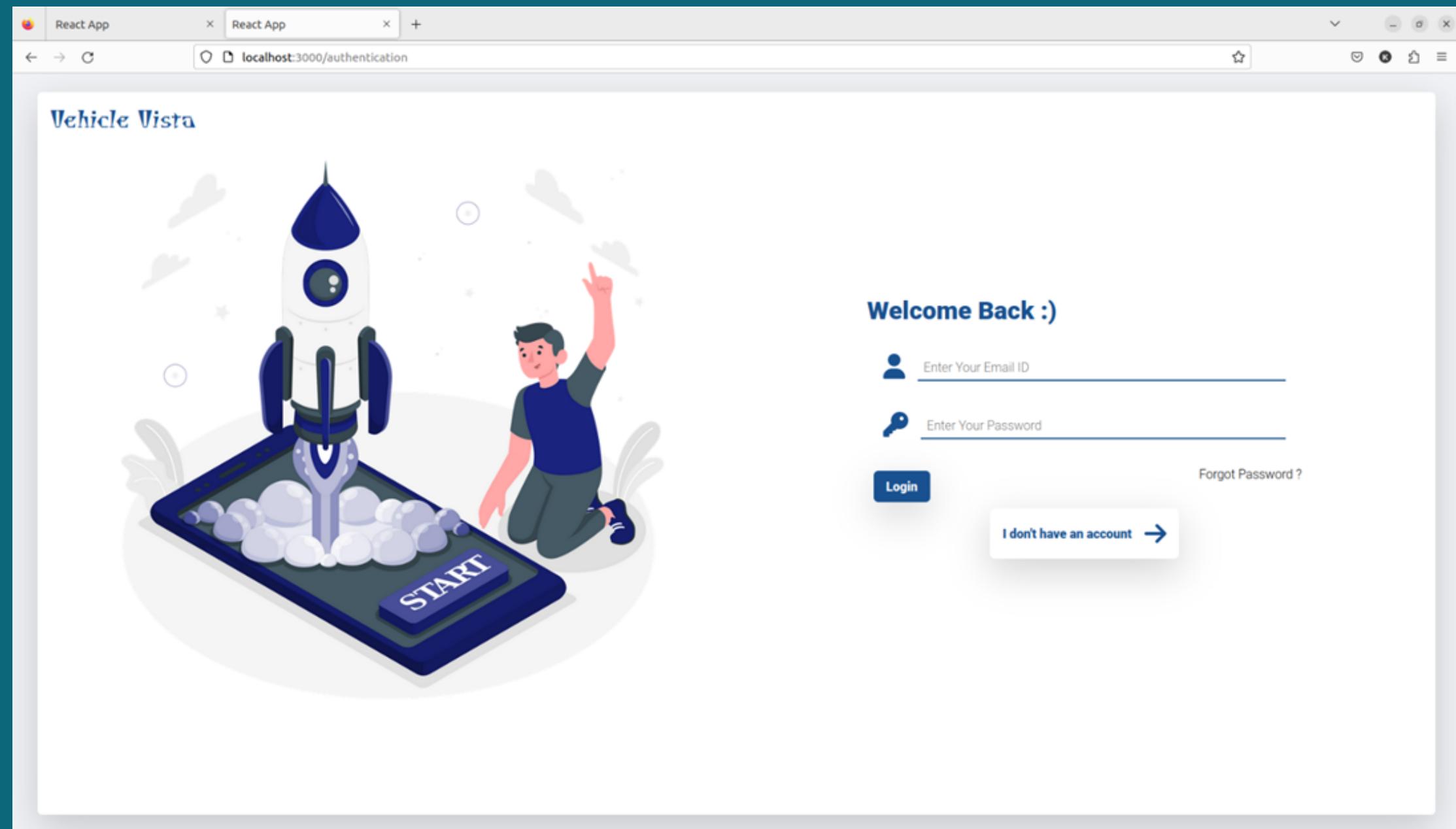
# USER-FRIENDLINESS

## 2. Incorporate user-friendly Features

Clear Labels

Tooltips

Easy to Understand



# USER-FRIENDLINESS

## 3.Feedback Mechanisms

- Implement feedback to inform users about the success or failure of their actions.
- Provide progress indicators
- Provide Error message

The screenshot shows a web browser window with the URL `localhost:3000/authentication`. The page has a light blue header with the text "Vehicle Vista". Below the header is a central illustration of a white rocket launching from a smartphone screen. A man in a blue t-shirt and jeans is kneeling next to the phone, pointing upwards with his right hand. The phone screen displays a large blue button labeled "START". To the right of the illustration is a sign-up form titled "Join With Us :)".

**Join With Us :)**

First Name  
Firstname field must be filled

Last Name  
Lastname field must be filled

Email ID  
Email ID is incorrect

Password  
Password must contain Capital and small letters and symbol

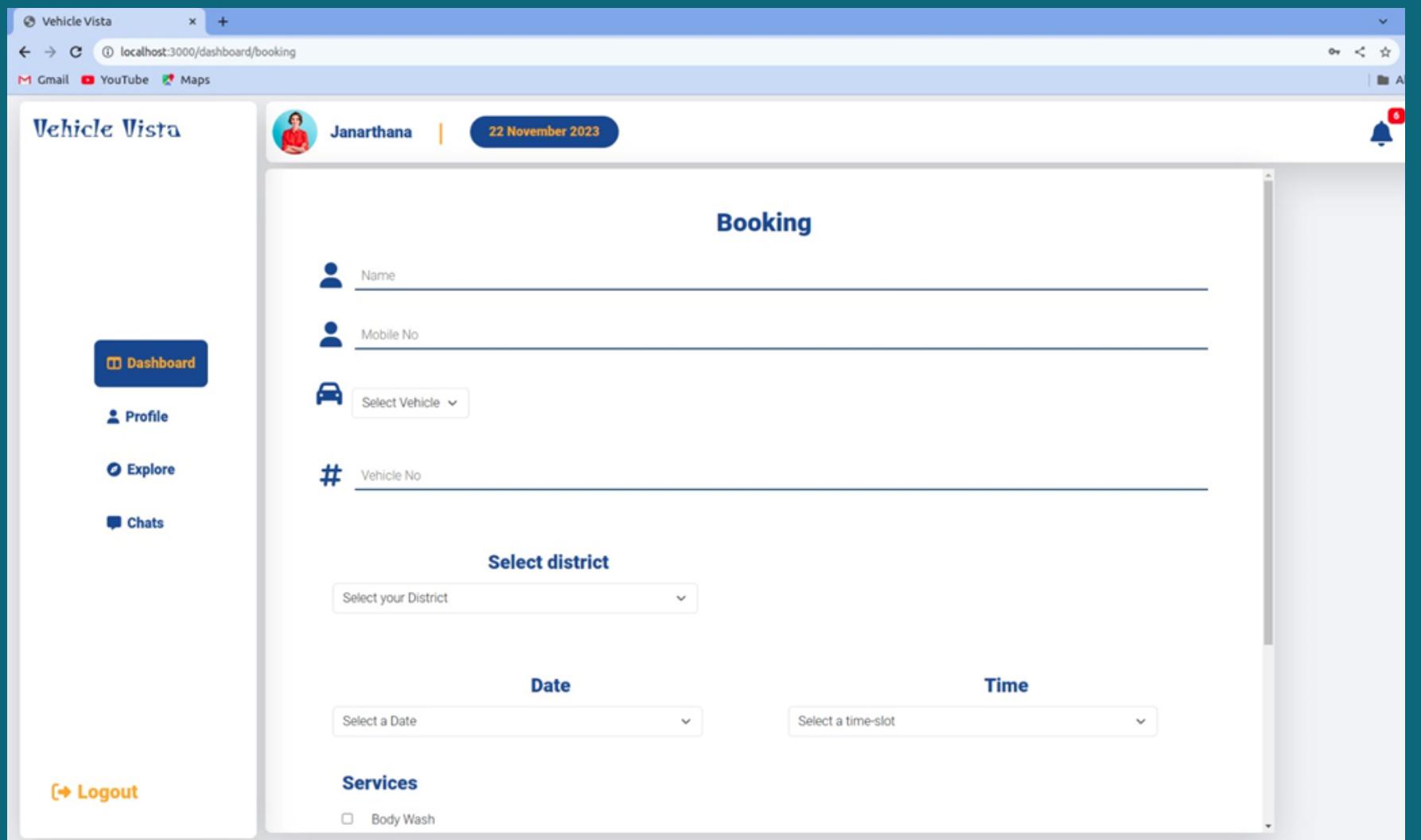
Re-enter Password  
Password does not matched

I am a service station owner  I am a vehicle owner

**Signup**

I have an account →

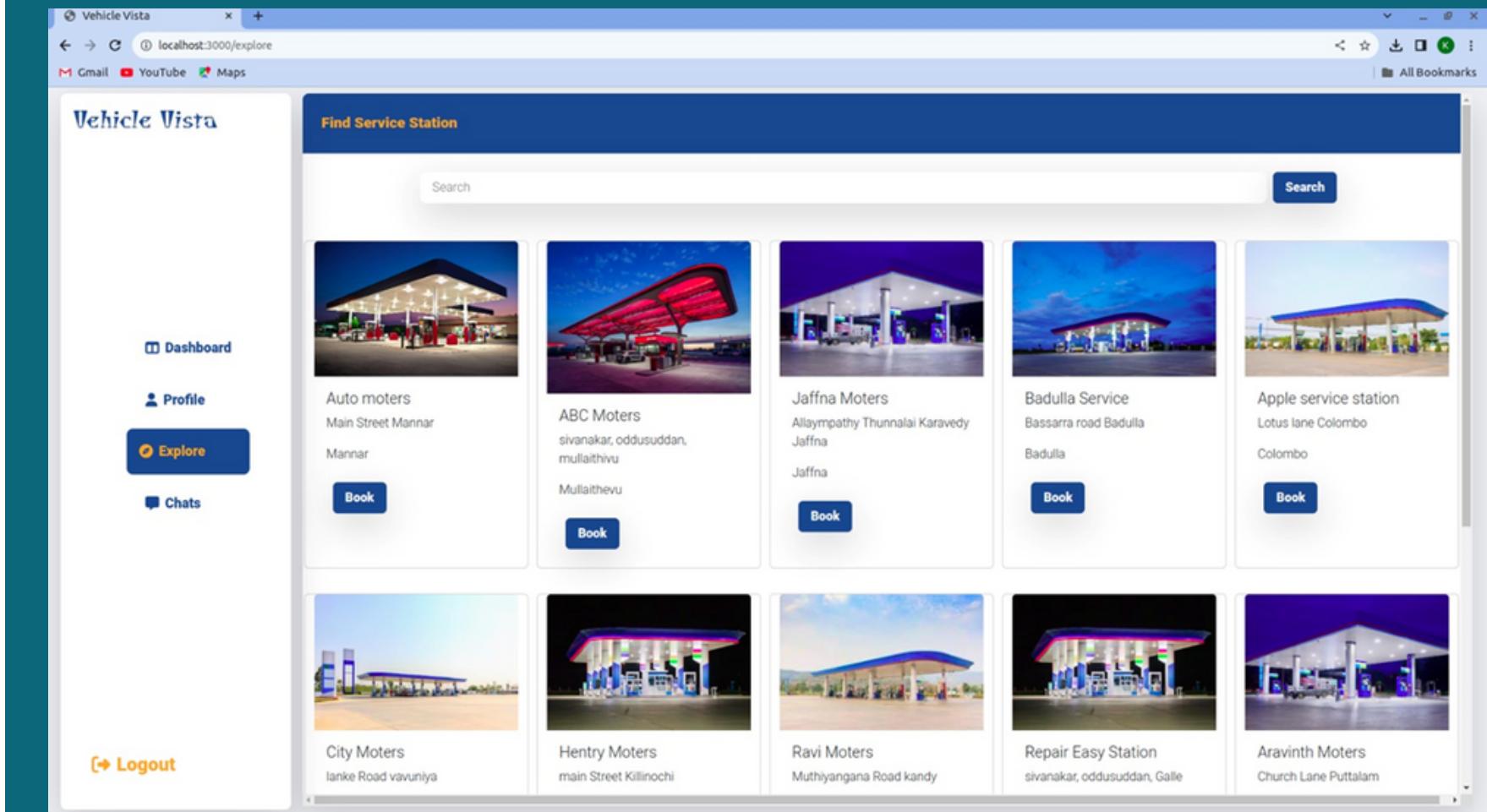
# EFFECTIVENESS



**Evaluate how well the system achieves its goal of booking a vehicle service station based on customer preferences and time slots.**

# EFFICIENCY

- Reduce the time and effort complete the booking process
- Optimize the system to reduce unnecessary steps and streamline the user journey.



# 2. FOUR GOLDEN RULES IN NAVIGATION DESIGN

## KNOWING WHERE YOU ARE

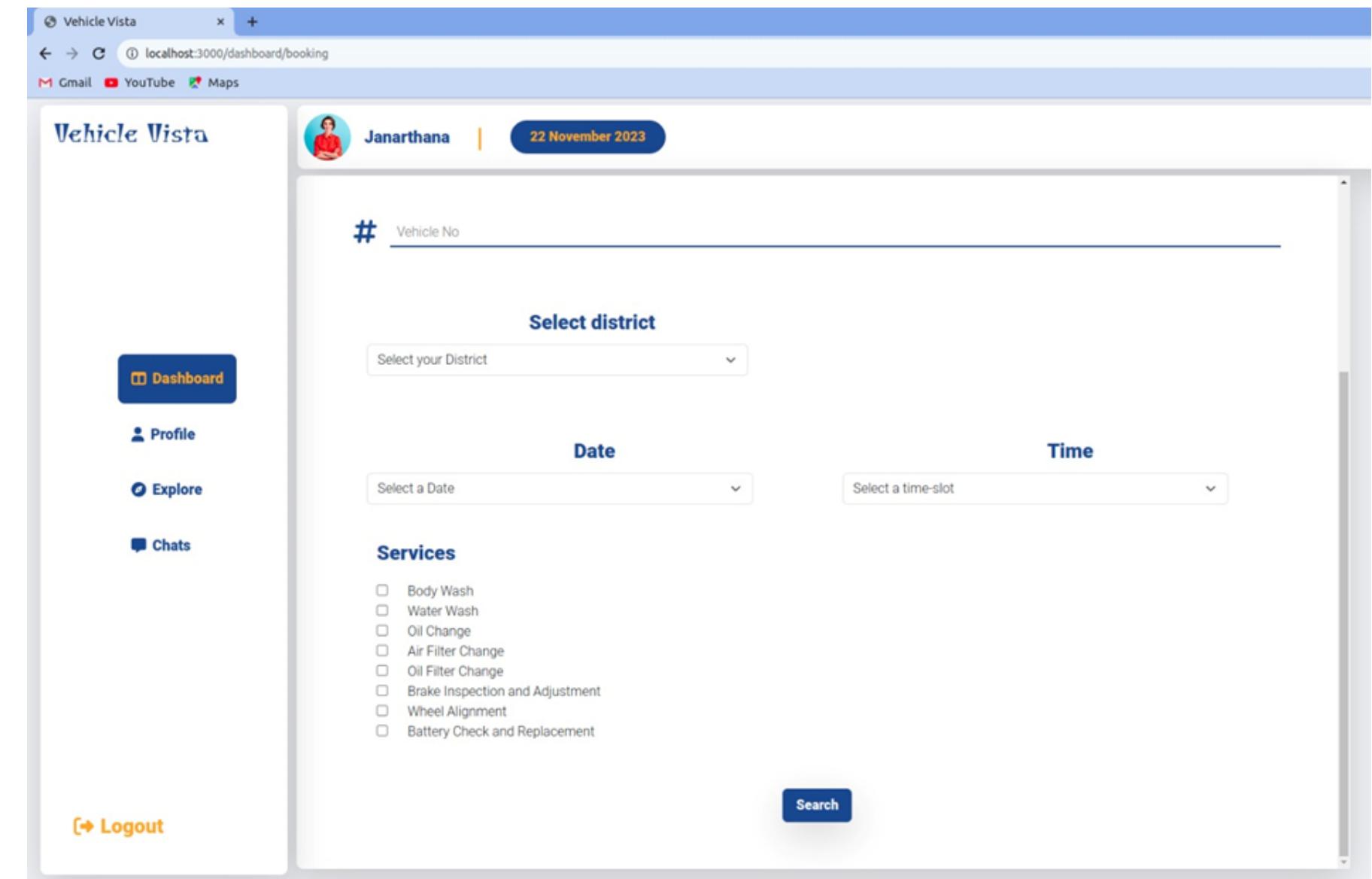
- **Clear navigation indicators- highlighting the current step in the booking process.**
- **Progress bar to inform users about their current location.**

The screenshot shows a web-based application interface for managing service stations. On the left, a sidebar titled "Vehicle Vista" lists several options: Dashboard, Manage Employee, Update Profile (which is currently selected and highlighted in blue), Preview Profile, Chats, and Add Service. At the bottom of the sidebar is a "Logout" link. The main content area is titled "Update Service Station". It contains a form with the following fields:

- Address: Auto motors, Main Street Mannar, Mannar, LSD4678
- Operating Hours: 08:00:00 to 20:00:00
- Facilities: Select The Facilities You Have (checkboxes for Waiting Area, Canteen, Rest Room, where Rest Room is checked)
- File Upload: Upload Your Service Station Images (a "Choose Files" button with "No file chosen" text)
- Action Button: A large blue "Update Service Station" button at the bottom right.

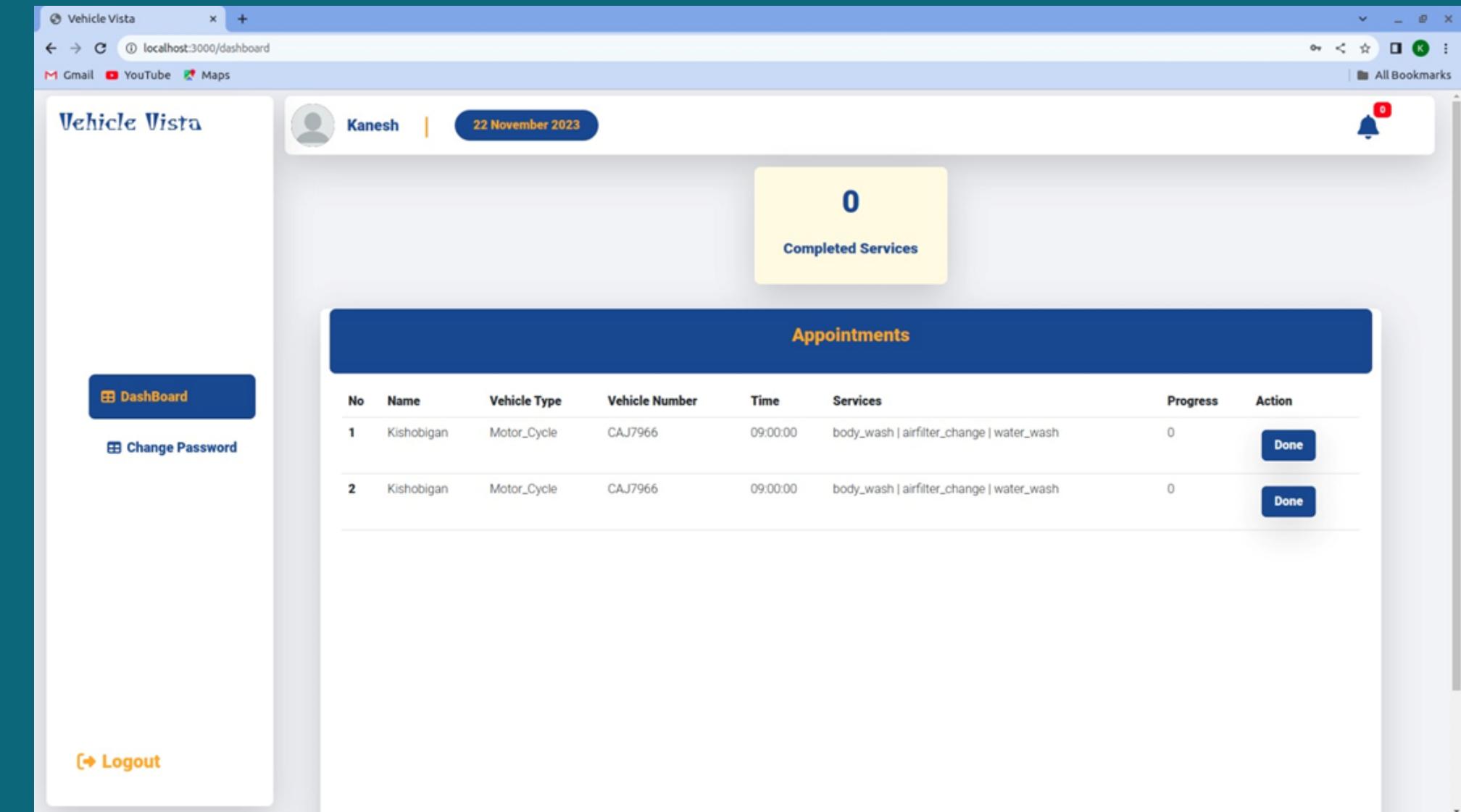
# KNOWING WHAT YOU CAN DO

- Use descriptive buttons and labels to guide users on their available choices.



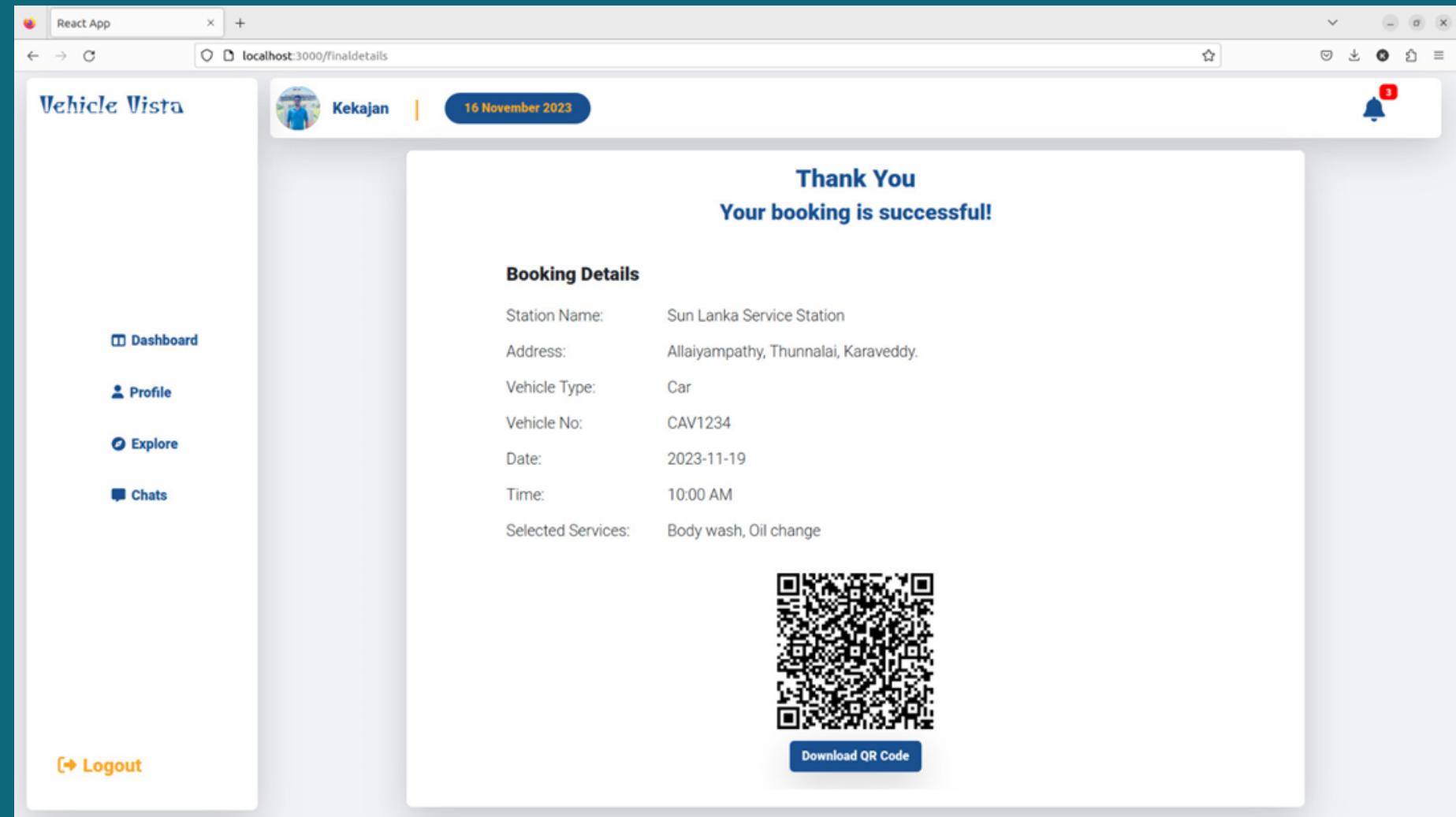
# KNOWING WHERE YOU ARE GOING (WHAT WILL HAPPEN)

- Communicate the consequences of user actions.
- Use informative messages to inform users about the Appointment details



# KNOWING WHERE YOU'VE BEEN

- Allows users to review their selections and actions during the booking process.



# 3. Screen Design and Layout:

## Grouping

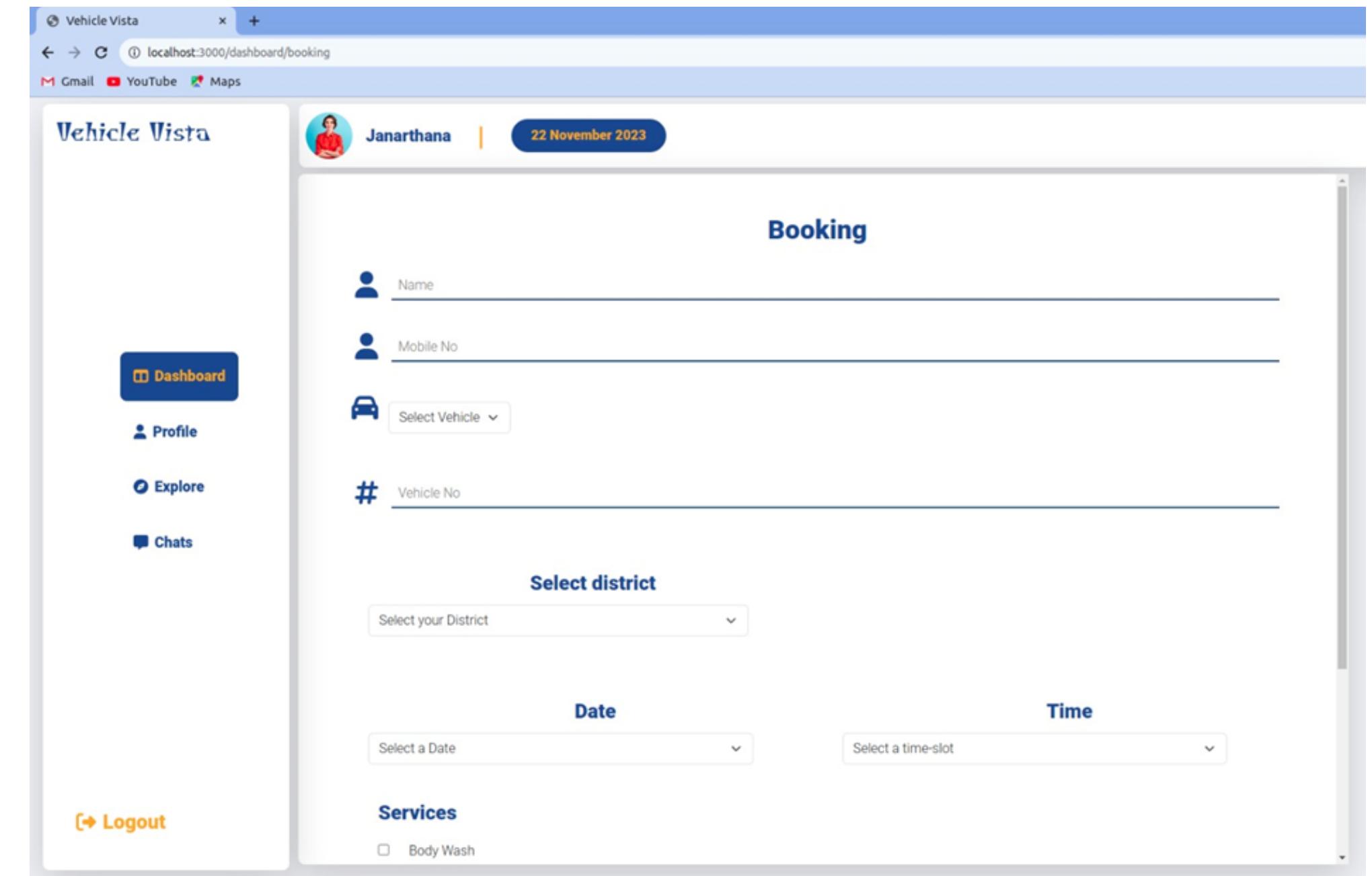
Group related elements together, such as grouping booking details and preferences.

The screenshot shows a web application interface titled "Vehicle Vista". The top navigation bar includes links for "localhost:3000/users", "localhost/project01/test.", and "localhost/localhost/veh". The main header displays the user "kishobigan" and the date "22 November 2023". A notification bell icon with a red badge is visible. On the left, a sidebar menu lists "Dashboard", "Service Stations", "Users" (which is highlighted in blue), and "Chats". At the bottom of the sidebar is a "Logout" button. The main content area is titled "Users" and contains a table with 10 rows of data. The columns are labeled "No", "Name", "Email ID", "Completed Services", and "Action". Each row represents a user with a "Delete" button in the "Action" column. The data is as follows:

No	Name	Email ID	Completed Services	Action
1	Janarthana	collinsjanarthana@gmail.com	0	Delete
2	Kavindu	kavindugfdo@gmail.com	0	Delete
3	Geethanjana	gamingkavindu77@gmail.com	0	Delete
4	Vinisha	collinsvinisha@gmail.com	0	Delete
5	Ranjini	kavindugfernando777@gmail.com	0	Delete
6	Anthonipillai	kacraftshopofficial@gmail.com	0	Delete
7	Janu	Kpranando@gmail.com	0	Delete
8	Ellsa	backupkavindu@gmail.com	0	Delete
9	Elien	kavinduf880@gmail.com	0	Delete
10	Iru	1234567890@gmail.com	0	

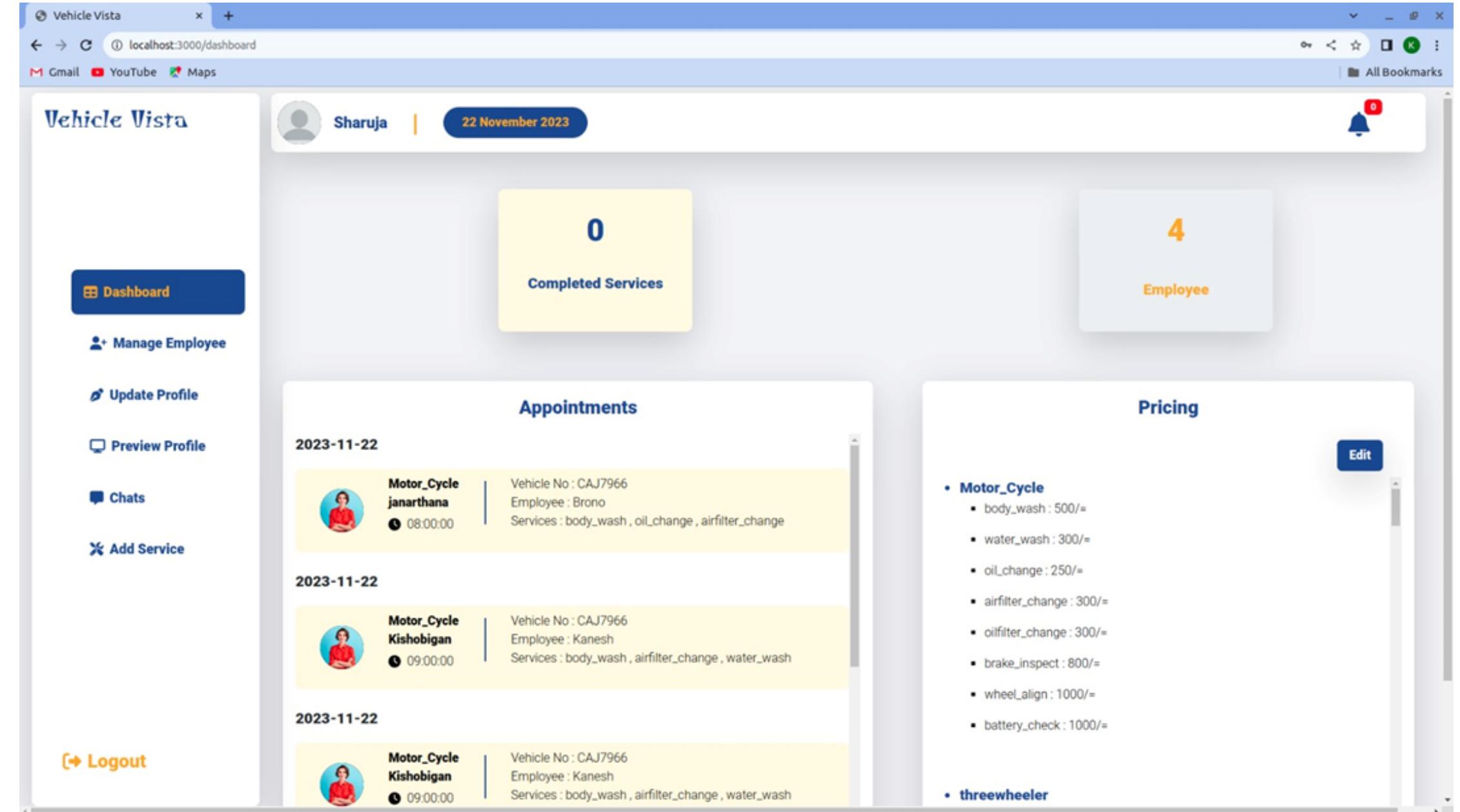
# Structure

Ensure a functional flow in the interface, guiding users logically through the booking process.



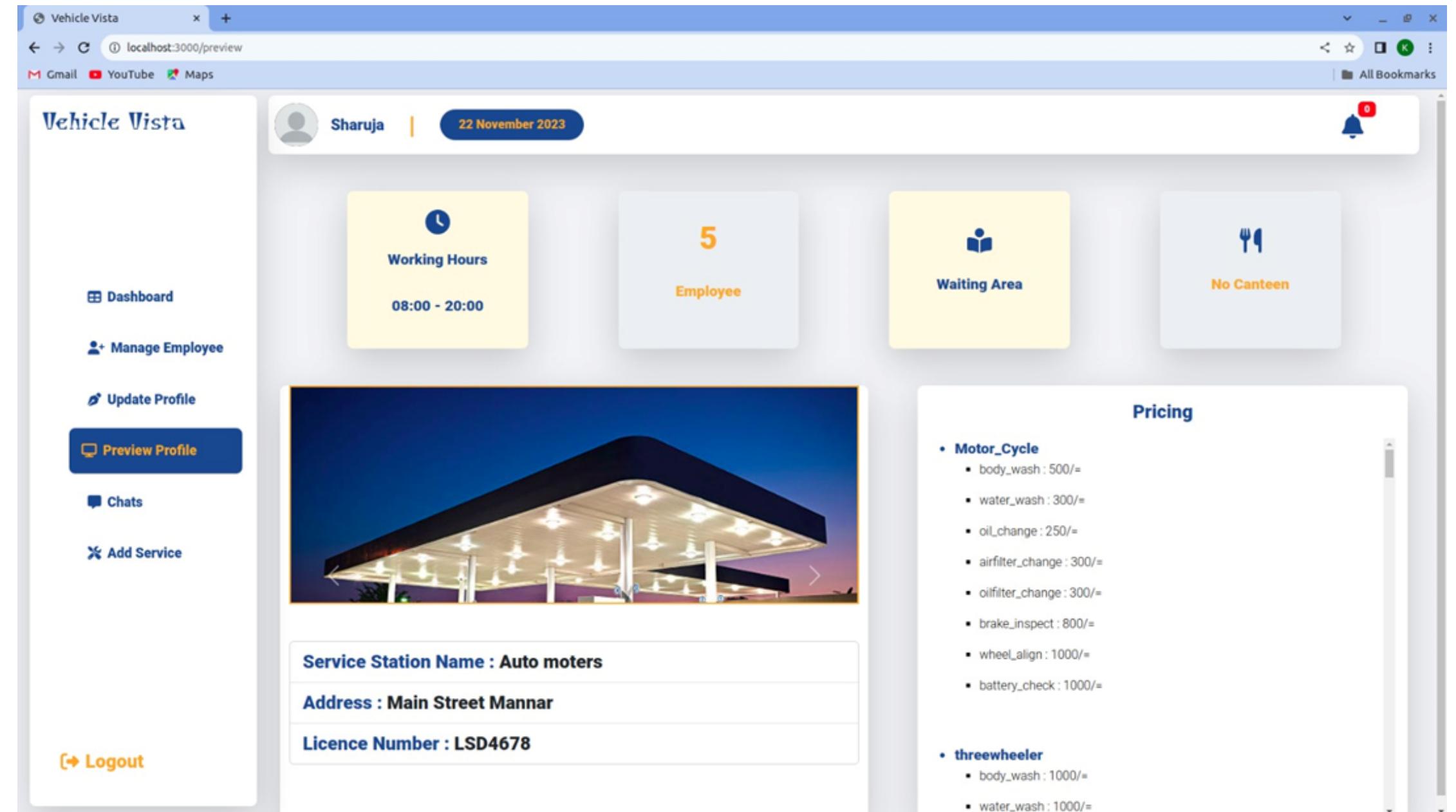
# Order

Organize elements in a sequential order that aligns with the natural flow of the booking process.



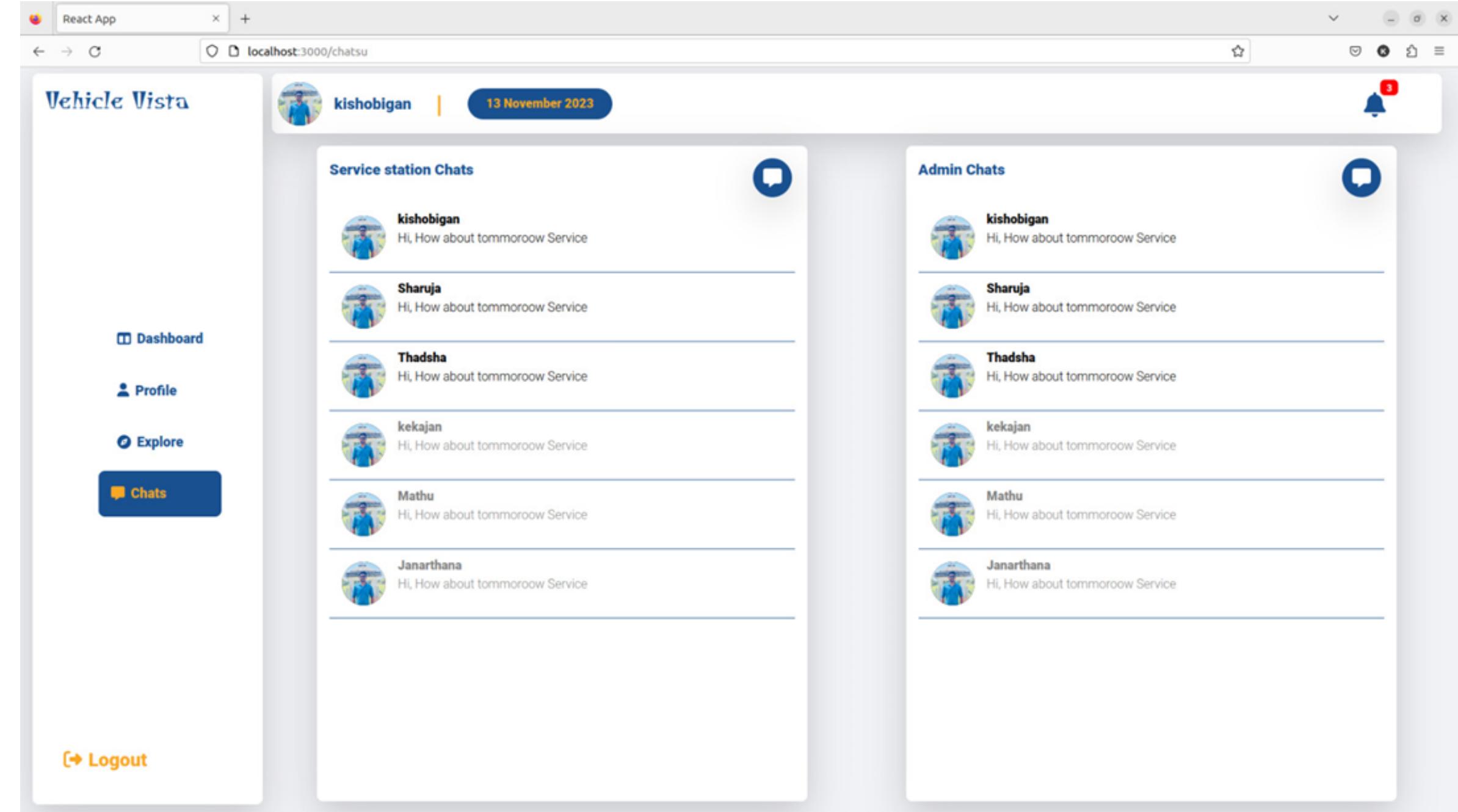
**Decoration**

**Use visual elements sparingly to avoid clutter and distraction.**



# Alignment

Maintain consistent alignment for a visually pleasing and organized layout.



# White space

We Use white space effectively to enhance readability and avoid visual overload.

The screenshot shows a web-based dashboard titled "Vehicle Vista". The top navigation bar includes links for "Vehicle Vista", "localhost/project01/test", "localhost/localhost/ve...", "Gmail", "YouTube", and "Maps". The main header displays the user "kishobigan" and the date "22 November 2023". A bell icon with a red notification count of "9" is visible in the top right corner.

The dashboard features several key statistics:

- Active Stations:** 0
- Customers:** 25
- Bookings:** 6

A sidebar on the left contains navigation links: "Dashboard" (highlighted in blue), "Service Stations", "Users", "Chats", and "Logout".

The main content area is titled "Requests" and lists seven entries:

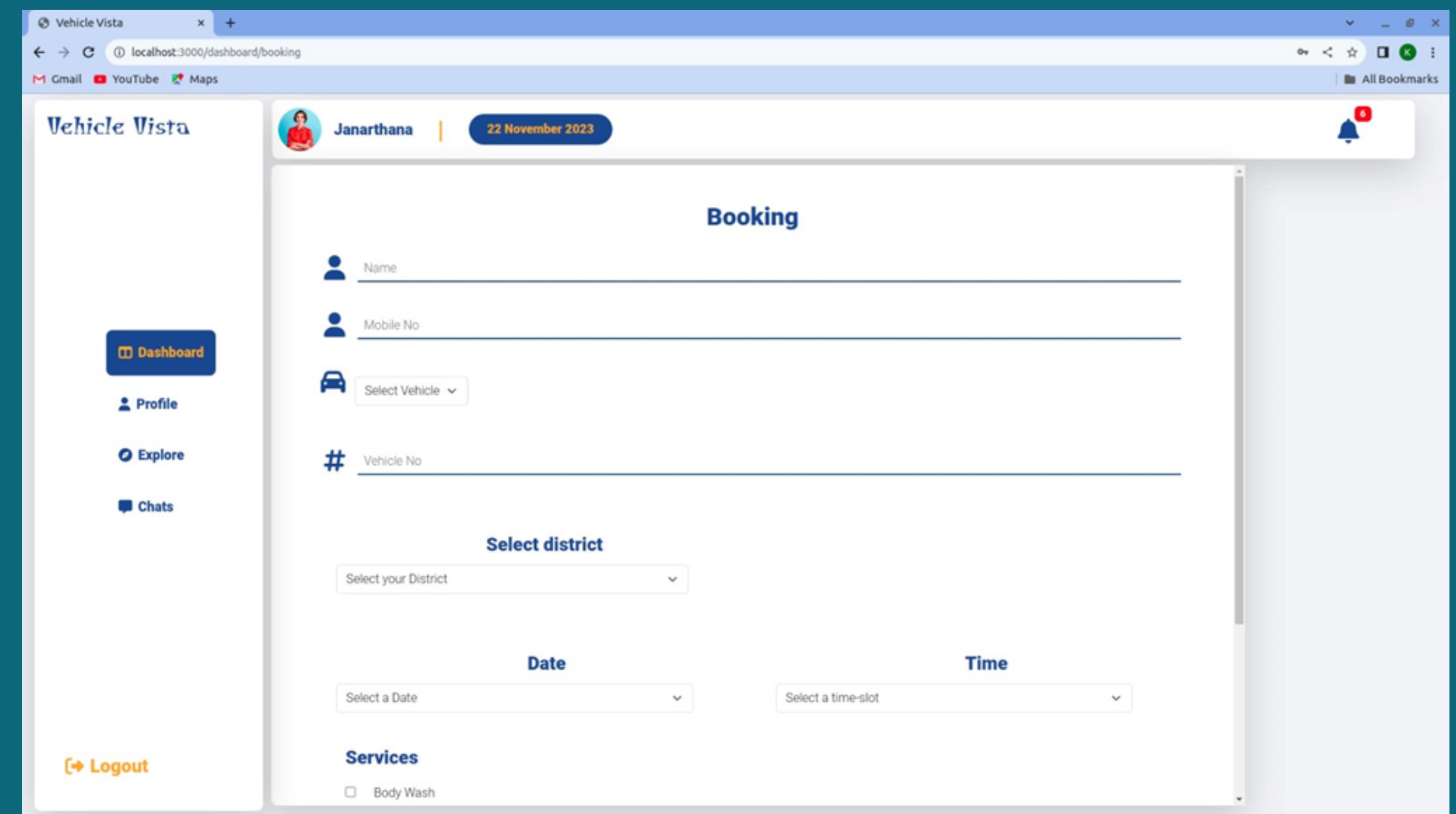
No	Name	Address	Paid	Accept
1	Auto moters	Main Street Mannar		<button>Allow</button> <button>Deny</button>
2	ABC Moters	sivanakar, oddusuddan, mullaithivu		<button>Allow</button> <button>Deny</button>
3	Jaffna Moters	Allaympathy Thunnalai Karavedy Jaffna		<button>Allow</button> <button>Deny</button>
4	Badulla Service	Bassarra road Badulla		<button>Allow</button> <button>Deny</button>
5	Apple service station	Lotus lane Colombo		<button>Allow</button> <button>Deny</button>
6	City Moters	Ianke Road vavuniya		<button>Allow</button> <button>Deny</button>
7	Hentry Moters	main Street Killinochi		<button>Allow</button> <button>Deny</button>

# 4. Usability Principles

## Learnability

### 1 Predictability

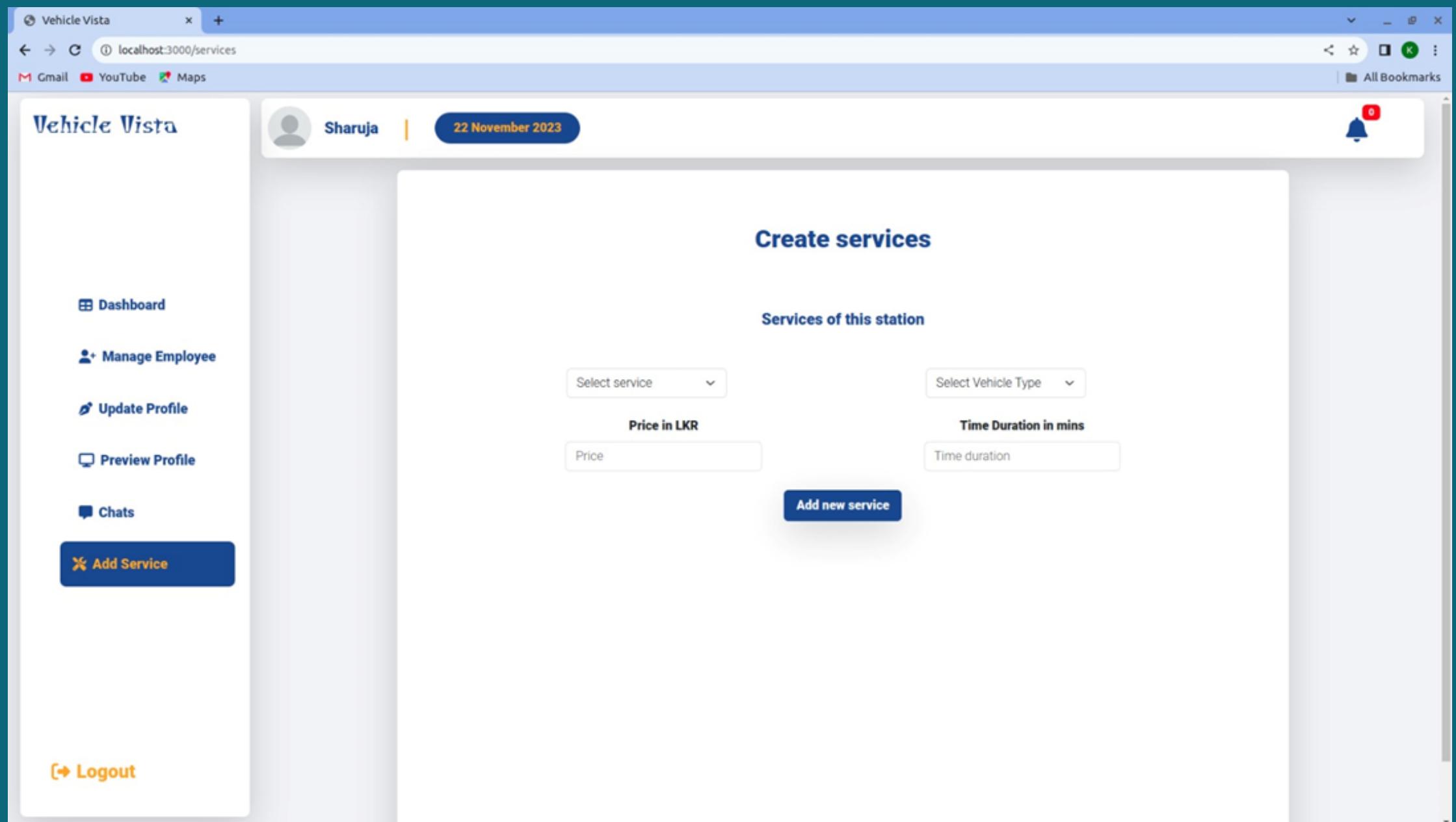
- Users should be able to predict the steps involved in booking a vehicle service. making it easy for users to understand what to expect at each stage of the booking process.



2

## Synthesizability

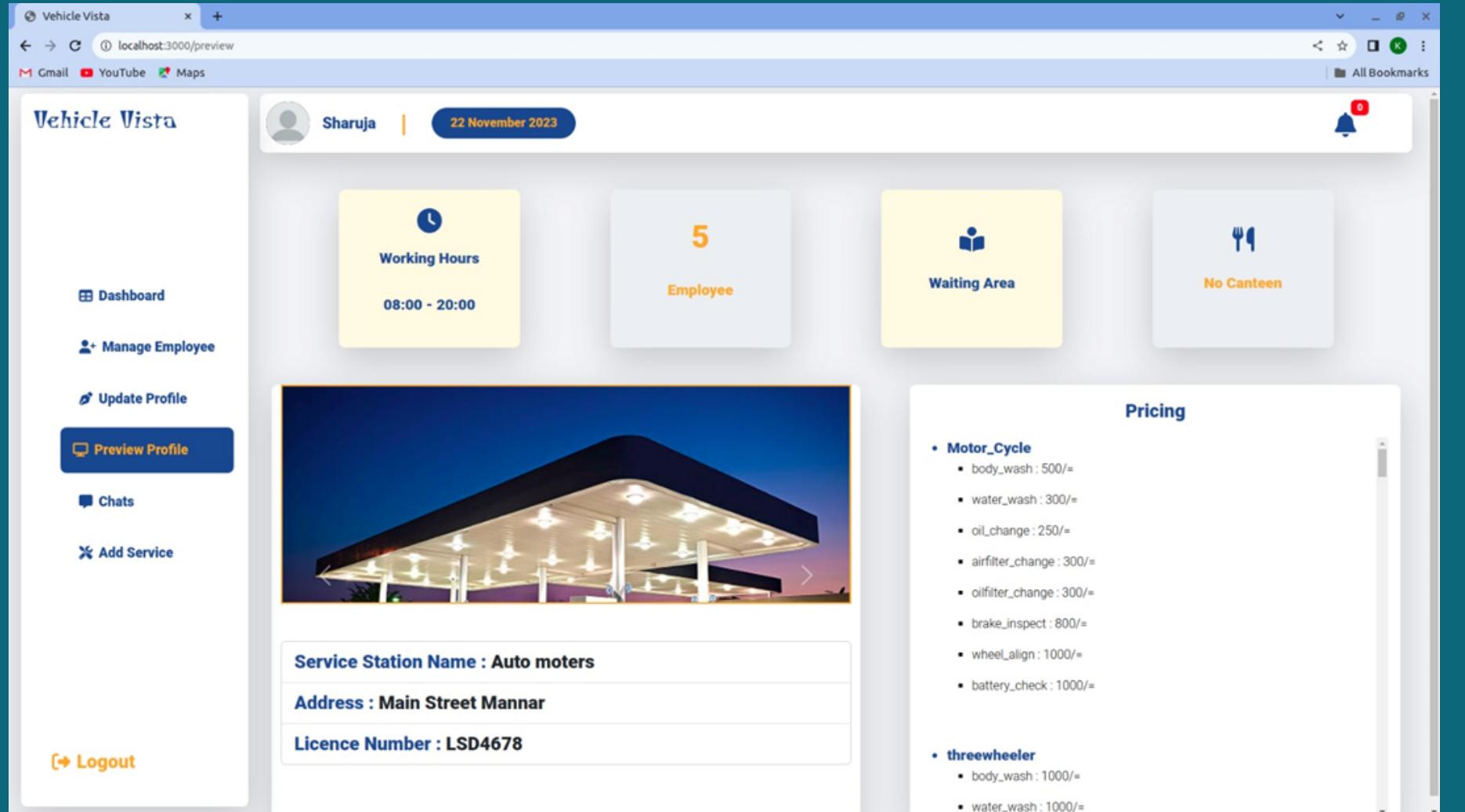
- **Clear and concise instructions, along with relevant details about service options, contribute to synthesizability.**



# 3

# Generalizability

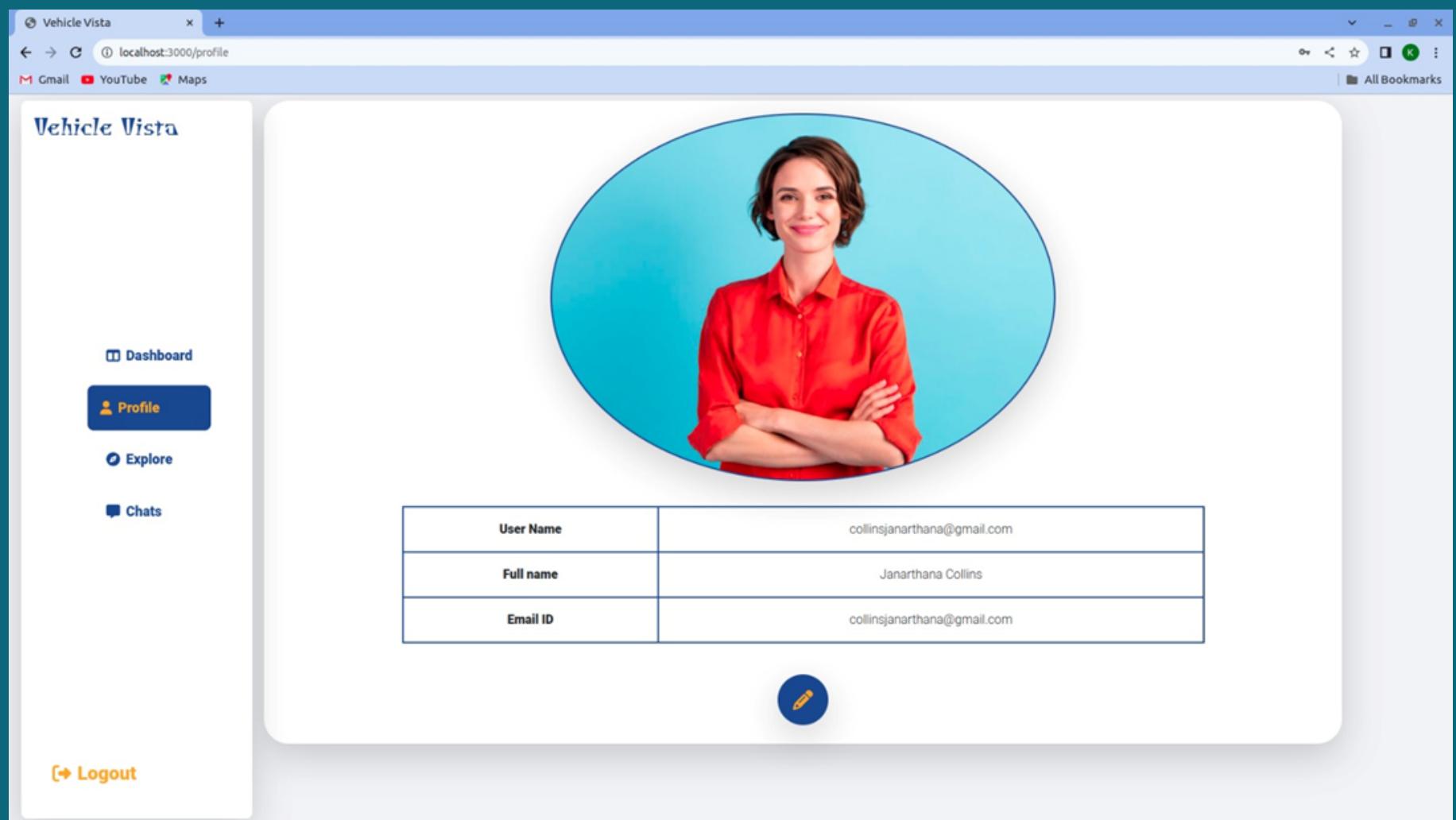
The system should cater to various types of vehicles, service needs, and user preferences. users can easily use the platform.



# 4

## Familiarity

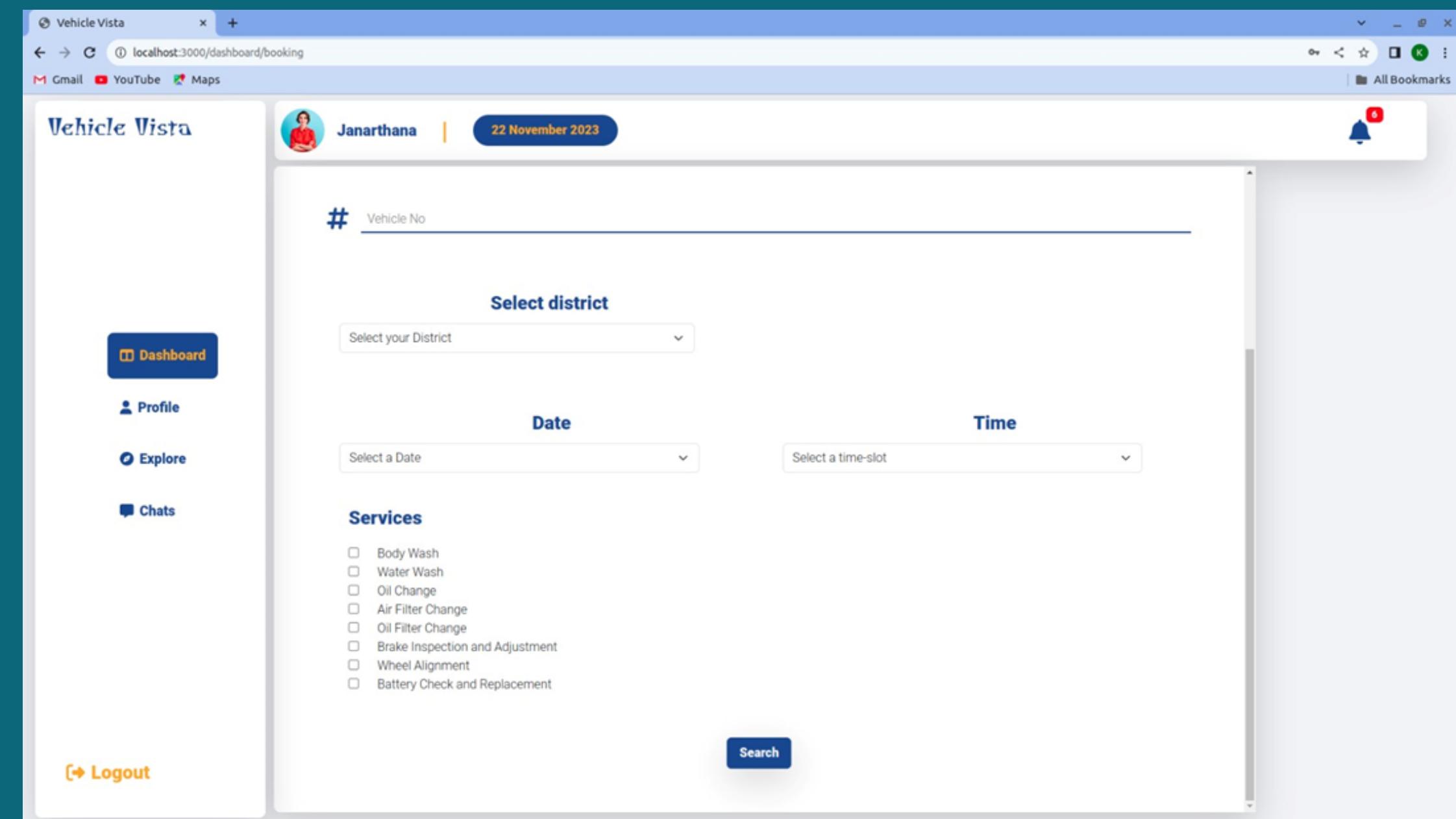
Design elements such as buttons, forms are align with service industry standards. This helps users feel comfortable and familiar with the system.



# Flexibility

## 1 Dialogue Initiative

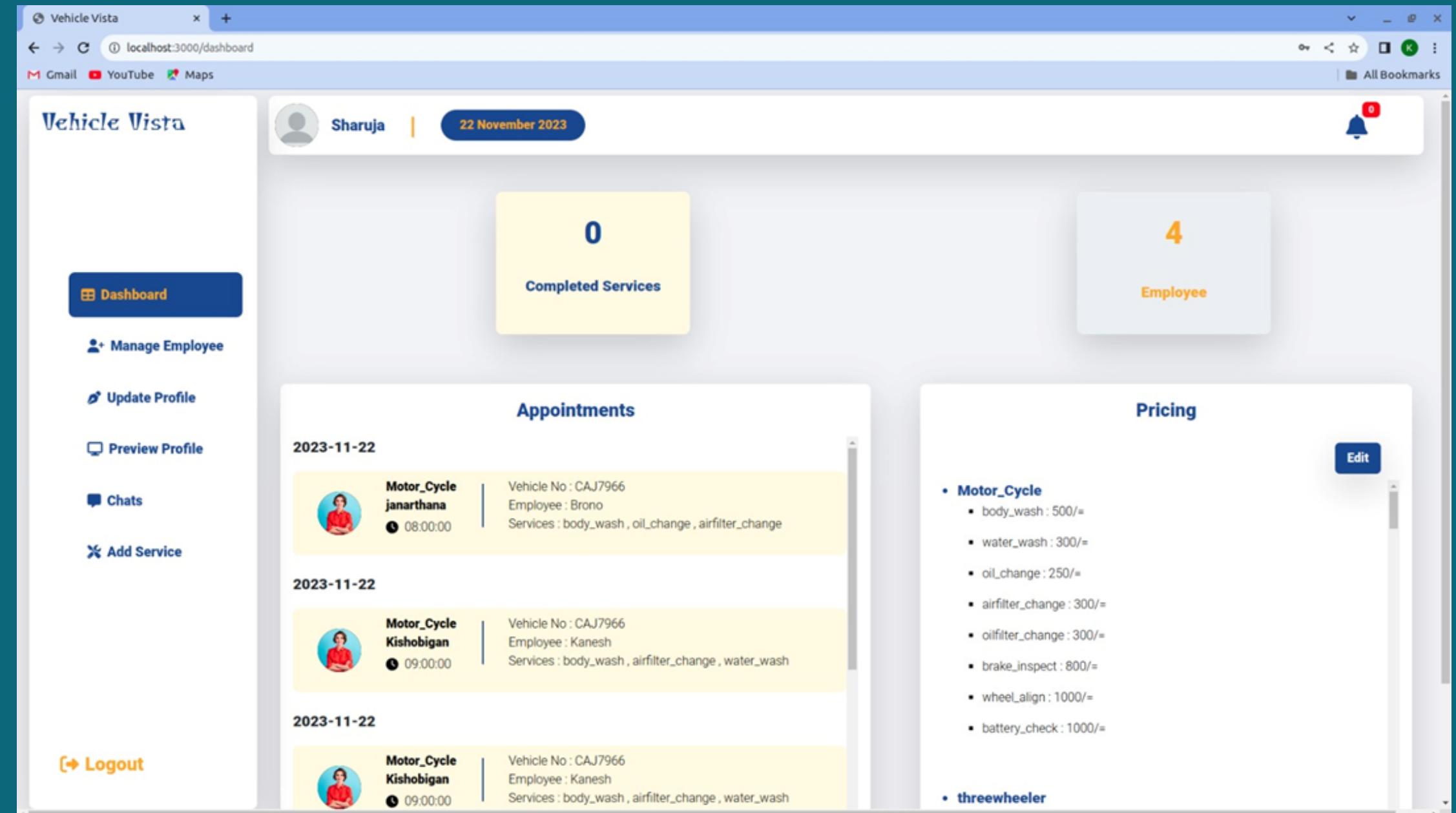
- The system might include providing options for selecting specific services, preferred service dates, or additional requests.



## 2

# Multithreading

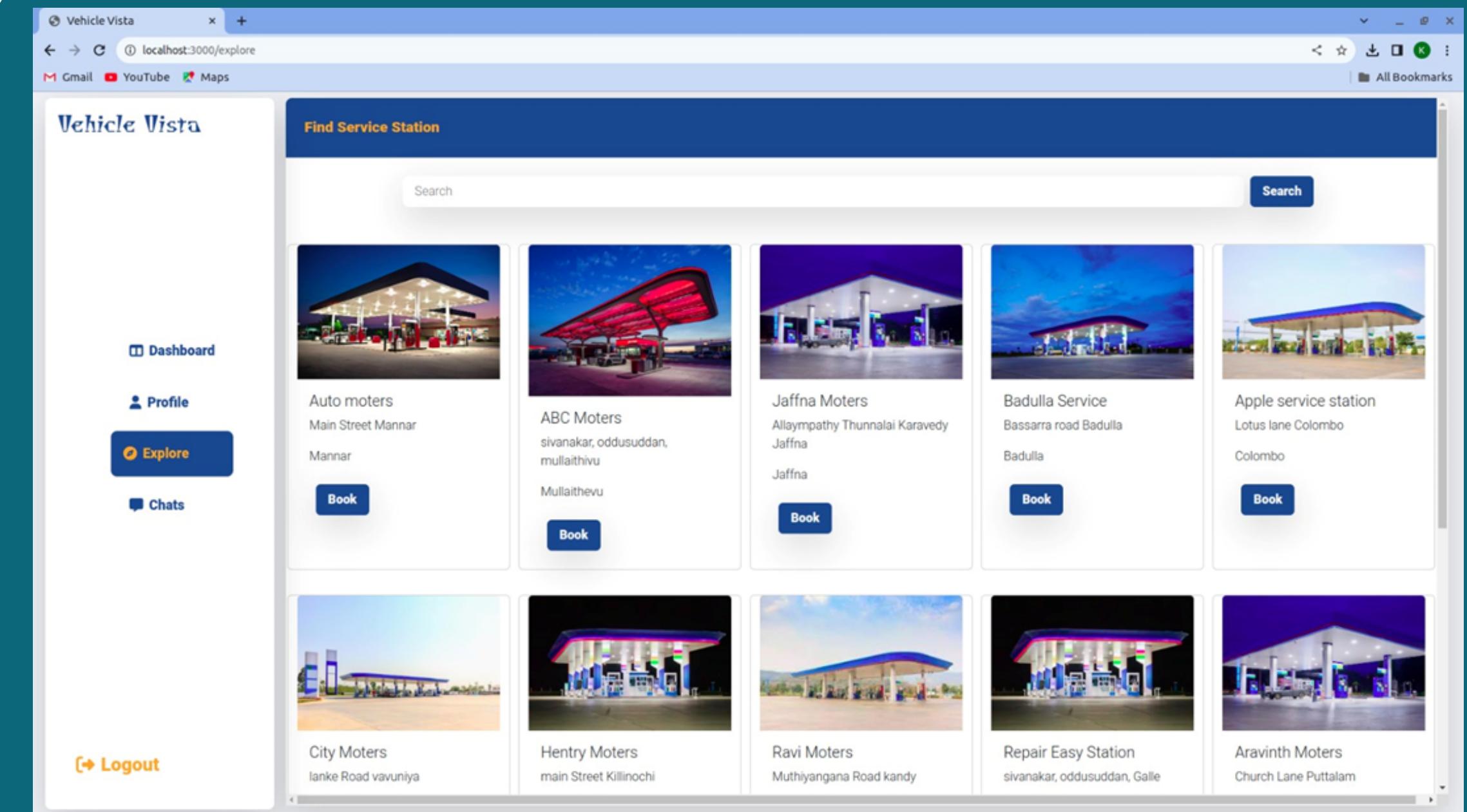
- Users should be able to explore different service options, check availability for various dates, or even compare prices concurrently.



### 3

## Task Migratability

- Users should be able to explore different service station options, check availability for various places.



4

## Customizability

The system should allow users to customize their service booking experience, such as specifying additional instructions, selecting preferred mechanics, or opting for additional services..

5

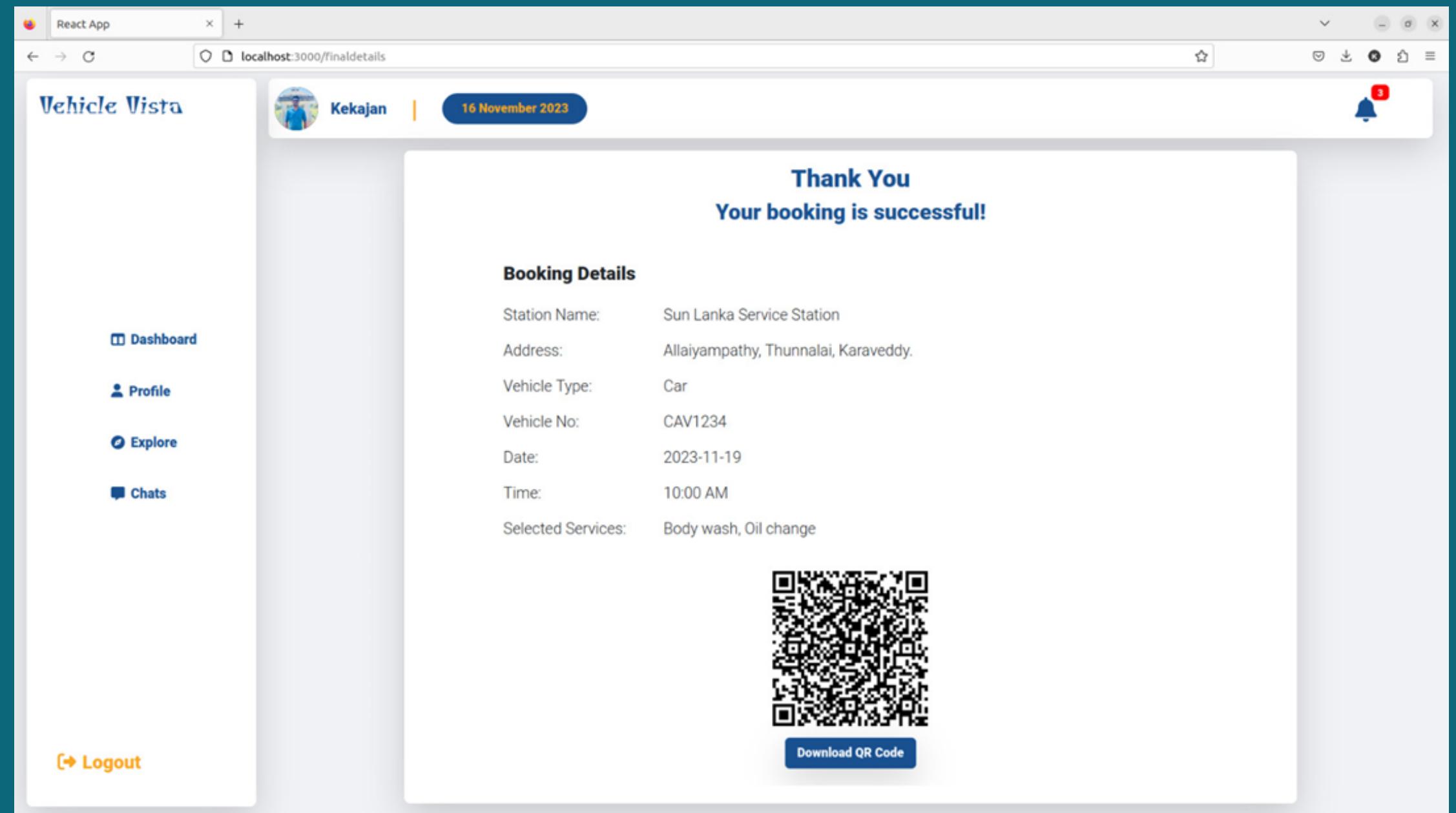
## Substitutivity

Users should be able to choose different paths to achieve the same result. For instance, they might prefer to browse services by category or search for a specific service by name.

# Robustness

## 1 Observability

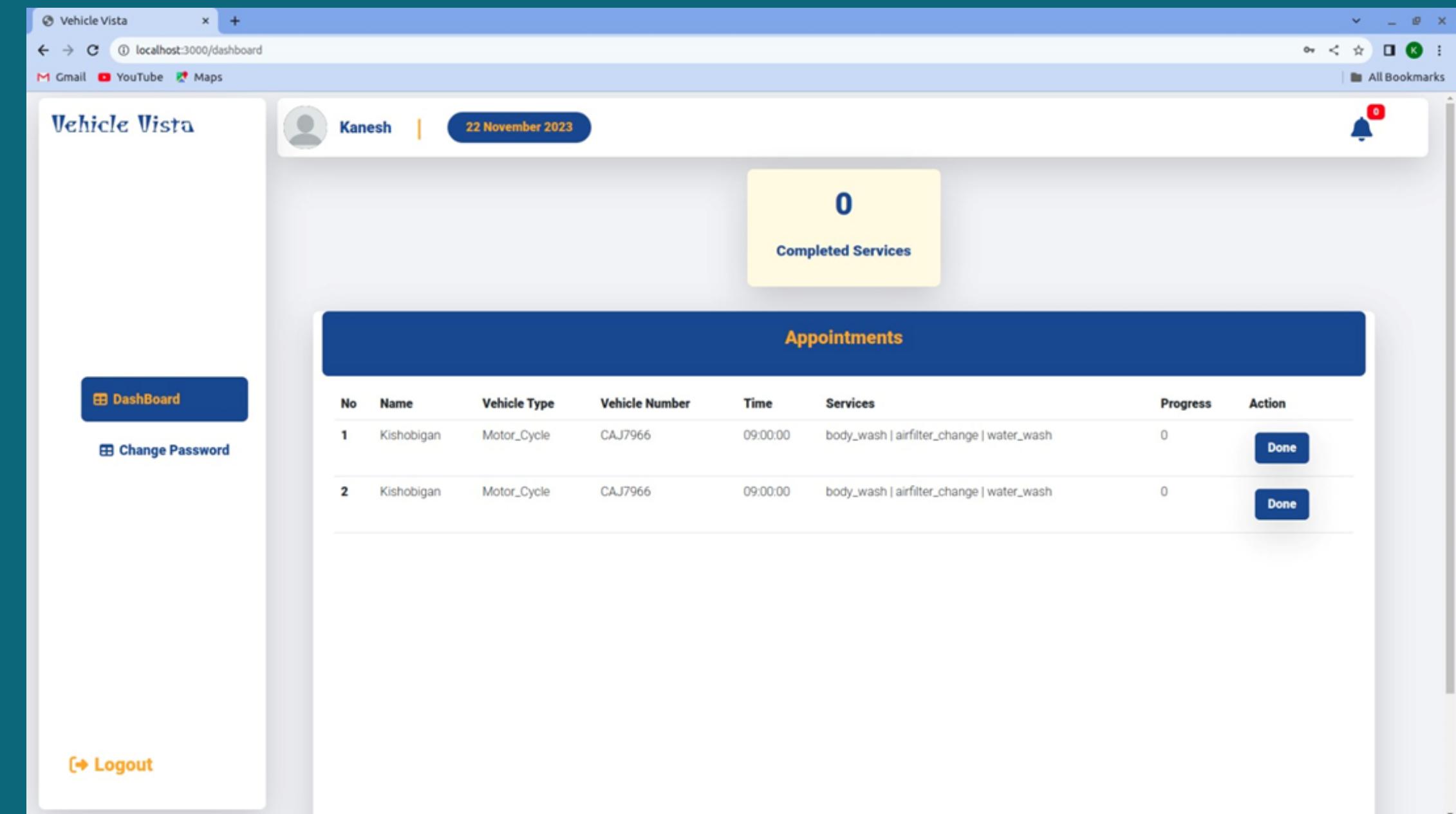
- Our system provides clear feedback confirming successful actions



# 2

# Task Conformance

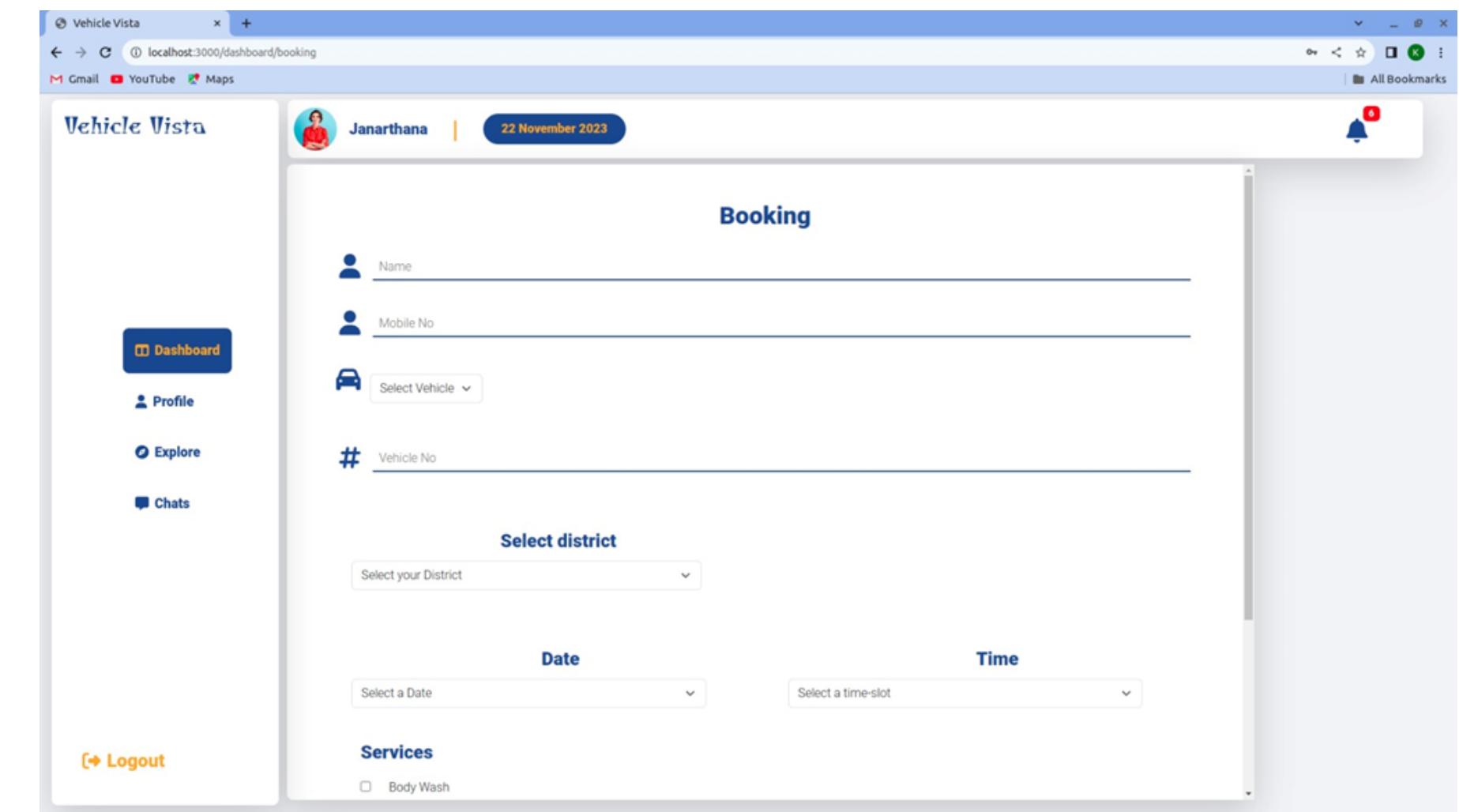
- **Sending notifications**
- **Confirming appointments**
- **Updating users on the service status.**



3

# Responsiveness

The system should respond quickly



# 4 Recoverability

A screenshot of a web browser window titled "Vehicle Vista". The URL in the address bar is "localhost:3000/addEmployee". The page displays a table of employee details under the heading "Employee's Details". The table has columns for No, Name, Username, and Actions. The data is as follows:

No	Name	Username	Actions
1	Ramesh	ramesh@gmail.com	<a href="#">Delete</a>
2	Kanesh	kanesh@gmail.com	<a href="#">Delete</a>
3	Suresh	suresh@gmail.com	<a href="#">Delete</a>
4	Bruno	bruno@gmail.com	<a href="#">Delete</a>

The left sidebar contains navigation links: Dashboard, Manage Employee (highlighted in blue), Update Profile, Preview Profile, Chats, and Add Service. A "Logout" link is at the bottom of the sidebar. A blue circular button with a plus sign is located at the bottom right of the main content area.

User can take corrective action  
once an error has been  
recognized

# Where we have Missed the Concepts

**we haven't used the adaptability under flexibility**

Eg: user can't adjust the position of the icons on the screen and can't change the font of texts.

**we haven't used the recoverability under robustness**

Eg: if we delete the user information, the system not ask “are you sure you want to permanently delete the information? ” option

# Our Team Members

**UWU/CST/20/005**

**UWU/CST/20/21**

**UWU/CST/20/058**

**UWU/CST/20/090**

**UWU/CST/20/100**

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**K.Kekajan**

**L.Mathumila**

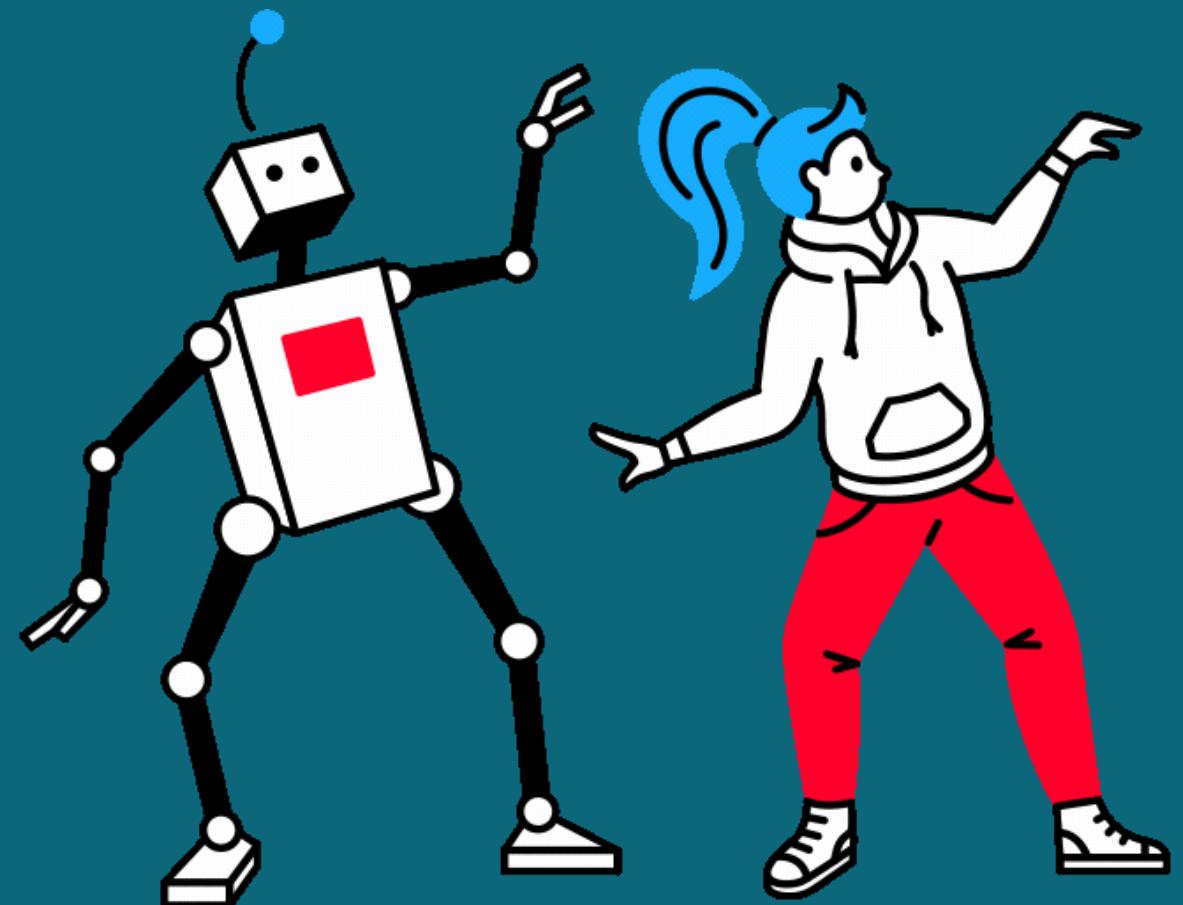
**S.Thadsha**

**C.Janarthana**

**K.Kishobigan**

**J.H.N.S.Croos**

# Thank you!





PPT Canva link