

FREE NOW React Frontend Test

Version	Description of Change	Author	Date
0.1	Initial version	Simpy Surbhi	14-12-2021

CONTENTS

1	INTRODUCTION.....	4
2	Requirements	4
3	Technical details	4
4	Application.....	6
5	Build	10

1 INTRODUCTION

Free Now Frontend is an application which displays the FREE NOW and SHARE NOW vehicles details along with their location in map.

- **Scope**

The document covers the requirement, build and implementation part of the application.

- **Assumptions and Constraints**

As per the requirement, the application retrieves the vehicles information from the shared server code. There is no modification done to server application.

2 Requirements

- **Display list of vehicles for both FREE NOW and SHARE NOW**

The vehicles should be displayed along with their information.

- **Show the vehicles from the list within a map.**

The vehicles should be displayed on the Map as per position information in vehicle data.

3 Technical details

The application has been developed using React and Typescript. Material design has been followed in designing of application pages.

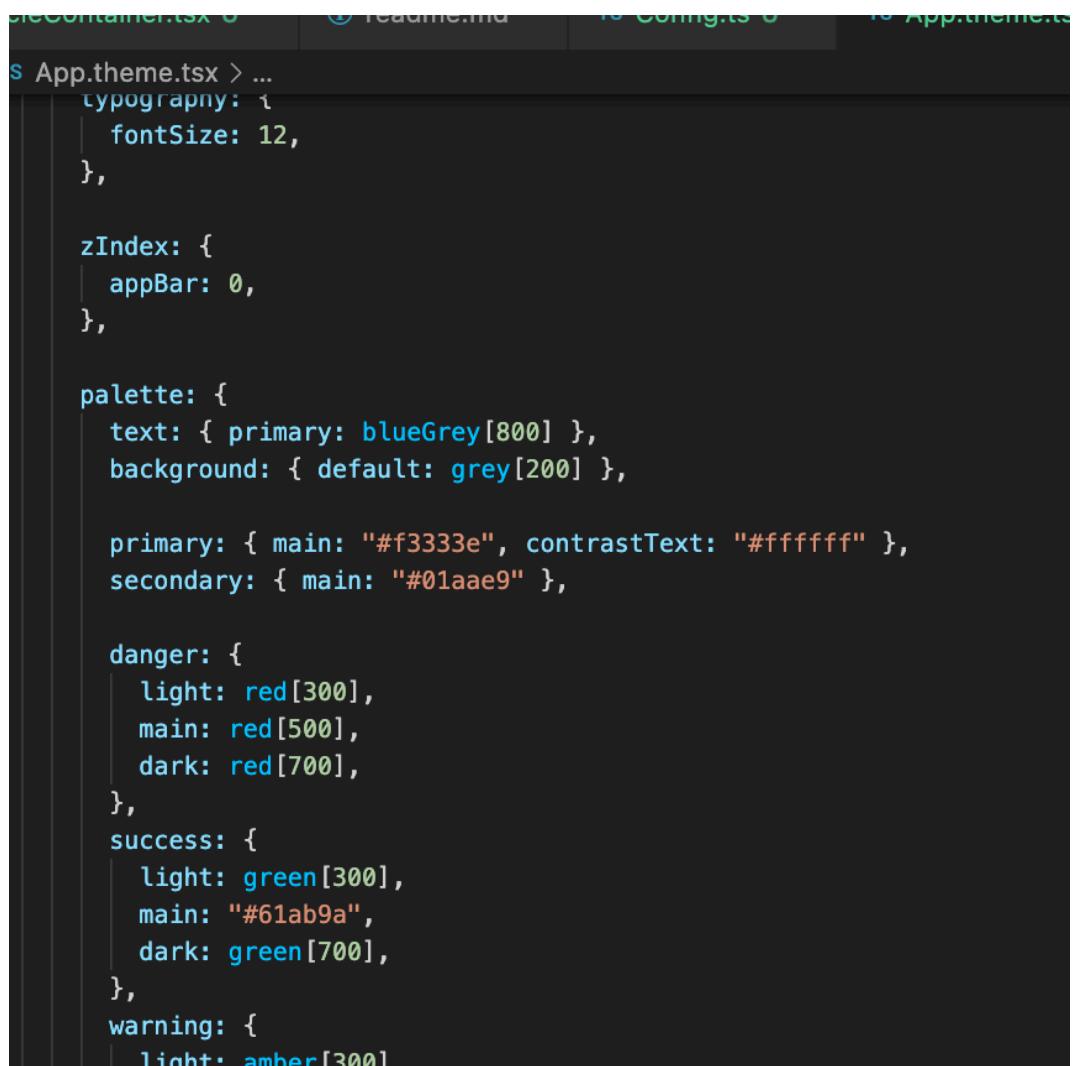
- The application when ran locally, it can be accessed using <http://localhost:3000/>
- The application is not hosted publicly in internet and can only be accessed locally.
- Responsiveness
 - The application well supported in different devices with different sizes.

- Vehicle information's are retrieved from **Server/free-now/vehicles.json** and **Server/share-now/vehicles.json**
- Theme is defined at application level in App.theme.tsx file.
- Below parameters are configurable using configuration
- **API_BASE_URL** – The api to retrieve the contacts. The default value is <http://localhost:5000/>

3.1 Architecture

3.1.1 App Theme

The app level theme is defined in App.theme.tsx file. It had color and component properties information.



```

s App.theme.tsx > ...
typography: {
  fontSize: 12,
},
zIndex: {
  appBar: 0,
},
palette: {
  text: { primary: blueGrey[800] },
  background: { default: grey[200] },

  primary: { main: "#f3333e", contrastText: "#ffffff" },
  secondary: { main: "#01aae9" },

  danger: {
    light: red[300],
    main: red[500],
    dark: red[700],
  },
  success: {
    light: green[300],
    main: "#61ab9a",
    dark: green[700],
  },
  warning: {
    light: amber[300]
  }
}

```

3.1.2 Common Components

Below common components are defined to reuse the common component to have consistency across the application.

DelayedLinearProgress: the component is to display the loading bar. This is useful to show loading information when data is being retrieved/submitted from/to server.

EmptyView – The common component to display the empty view with a text message. This is useful in case where a text message needs to be displayed when there is no data to display.

3.1.3 Folder structure

The code is structured in proper way. Codes are grouped as per their significance

Models – to store all model classes

Views – contains display classes

Hooks – contains all custom hooks

4 Application

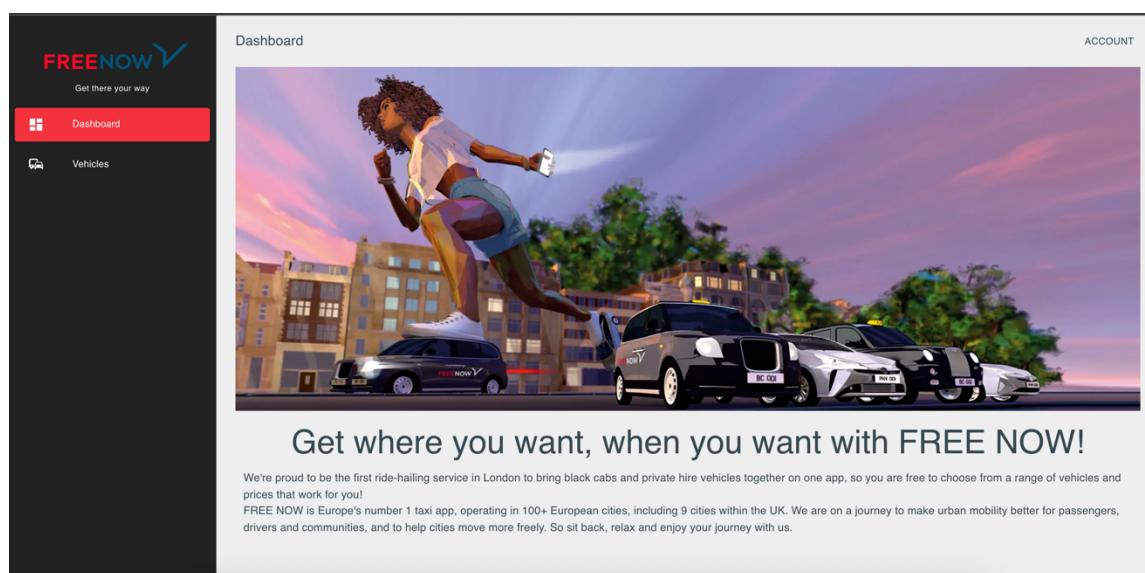
The application can be viewed by visiting below link on browser. It supports all latest modern browser – Chrome, Safari etc.

<http://localhost:3000/>

The application when launched, dashboard screen will be displayed.

4.1 Dashboard

Below screen will be displayed on launch. Side bar displays all the available menus.

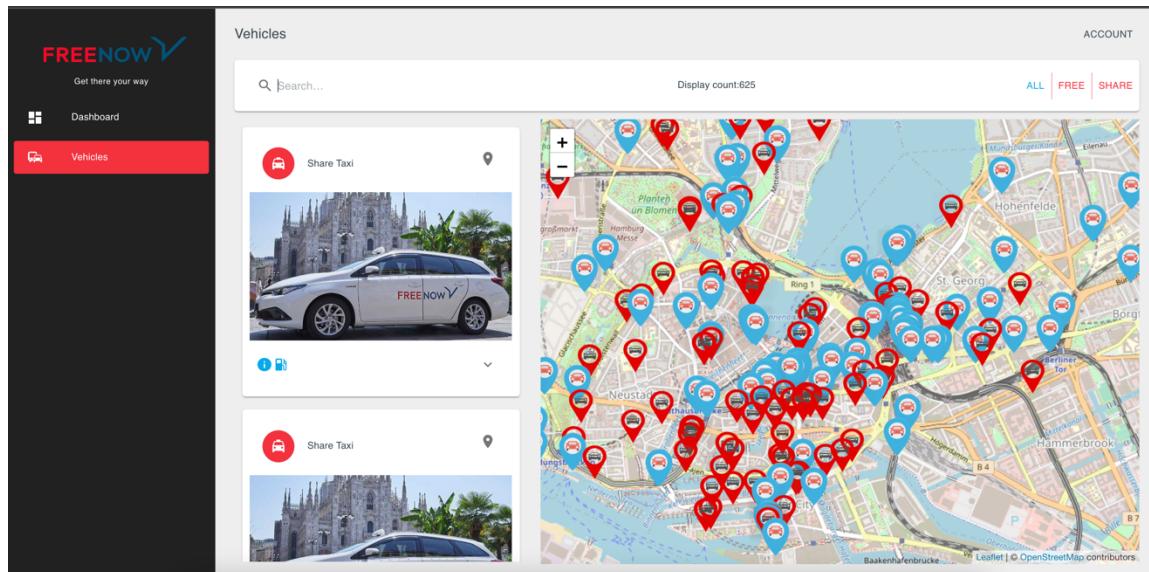


4.2 Vehicles

The vehicle screen displays the vehicles from FREE NOW and SHARE NOW. The interface displays vehicle information and supports – search, filter functionality. The vehicle position is displayed on Map.

4.2.1 Vehicles List

The vehicles from FREE NOW and SHARE NOW are displayed in the list. Each vehicle is displayed in separate component.



4.2.2 Vehicle component

Each vehicle is displayed in separate component.

It contains –

1. Information about the vehicle.
2. Button which highlights its location on Map
3. Tooltip for each icon is added which displays small description.

The image displays two screenshots of the FREE NOW mobile application interface.

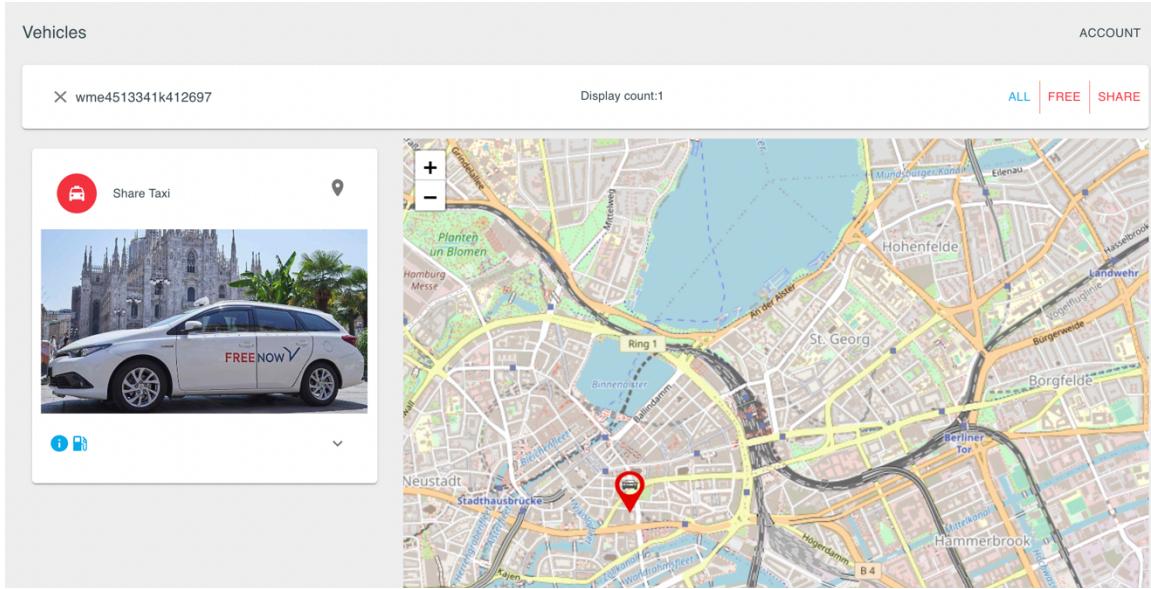
Top Screenshot: This screenshot shows a vehicle detail page for a "Share Taxi". It features a large image of a white car with "FREE NOW" branding parked in front of a cathedral. Below the image, there are five circular icons with icons: a red circle with a car, a blue circle with a battery, a green circle with a person, a yellow circle with a gear, and a grey circle with a person. To the right of the vehicle image, the word "Share Taxi" is displayed above a "Details" section. The "Details" section contains the following information:

	Name	HH-GO8522
Engine Type	CE	
VIN	WME4513341K565439	
Fuel	42	
Exterior	(sad face icon)	

Bottom Screenshot: This screenshot shows the "Vehicles" screen. On the left, there is a sidebar with the "FREE NOW" logo and a "Get there your way" tagline. Below the logo are two buttons: "Dashboard" (black) and "Vehicles" (red). The main area has a dark header with the "Vehicles" title and an "ACCOUNT" button. Below the header is a search bar with the placeholder "Search...". To the right of the search bar is a "Display count: 202" label and three buttons: "ALL" (red), "FREE" (blue), and "SHARE" (green). The main content area is a map of a city street with several "Free Taxi" icons marked with blue pins. The map includes street names like "Kirchenallee", "Bremer Reihe", and "Steintorweg", and various landmarks such as "Hauptbahnhof Kirchenallee", "Schiffsbörse", "Hotel Condor", and "Hotel Graf Moncke". A copyright notice at the bottom right of the map states "Leaflet | © OpenStreetMap contributors".

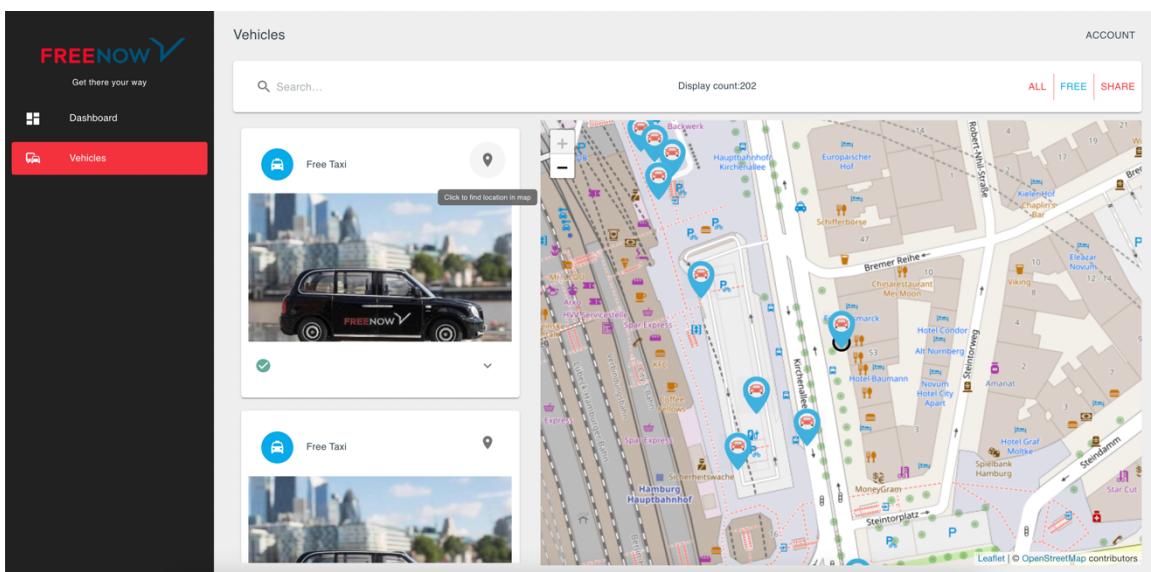
4.2.3 Search

There is a search option to search for vehicle with their name or VIN information. The display count information displays the displayed vehicles count.



4.2.4 Filter

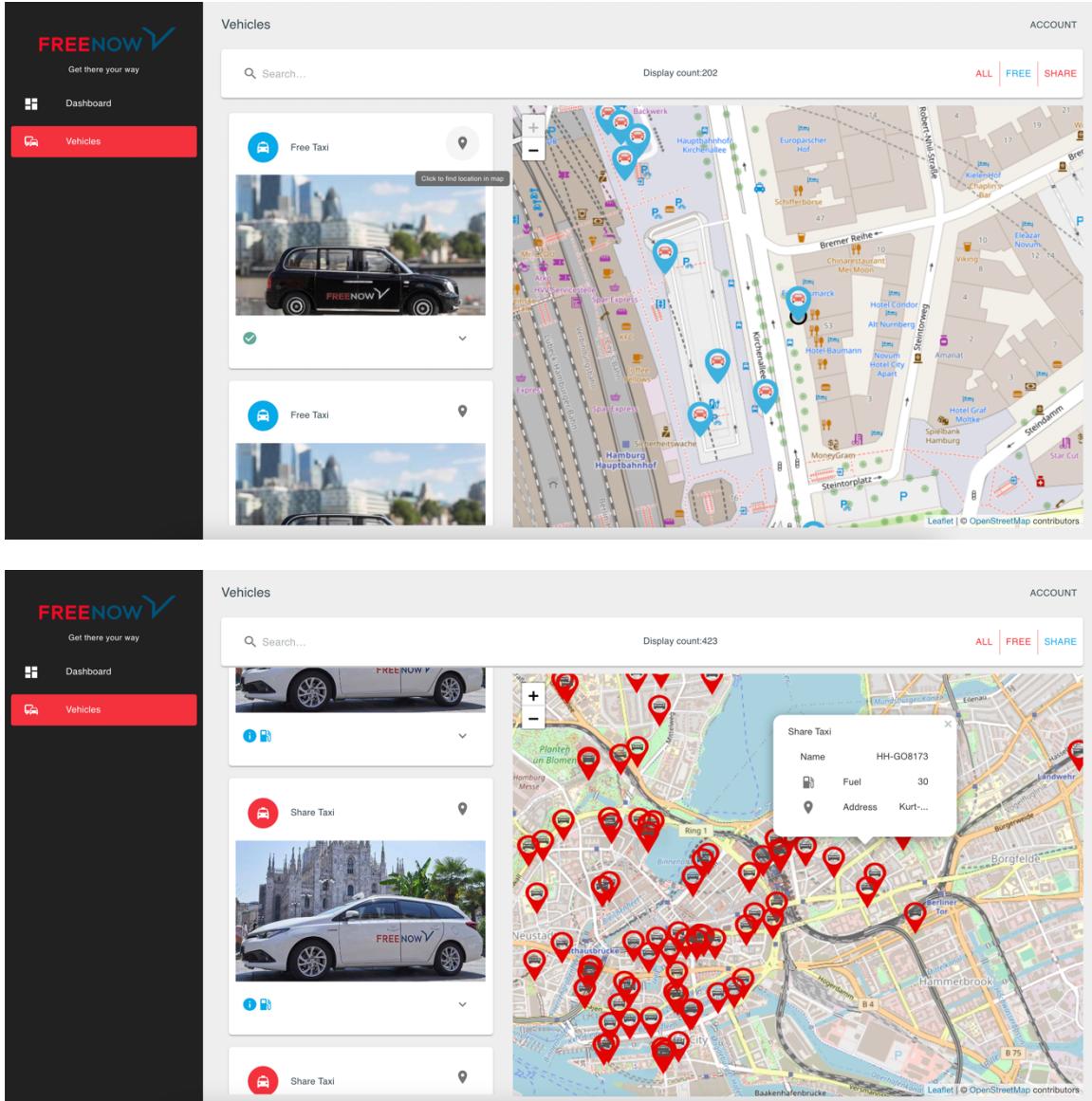
There is a filter option to filter vehicles based on type FREE NOW and SHARE NOW.



4.2.5 Map

Vehicle position will be displayed on Map.

Vehicles from FREE NOW and SHARE NOW are displayed as blue and red icons respectively on Map. When vehicle on map is clicked, it displays its detail.



5 Build

- 5.1 The project is shared locally via mail.
- 5.2 Execute **npm install** to install the dependencies.
- 5.3 In the project directory, you can run:

npm start

Runs the app in the development mode. Open <http://localhost:3000/> to view it in the browser.