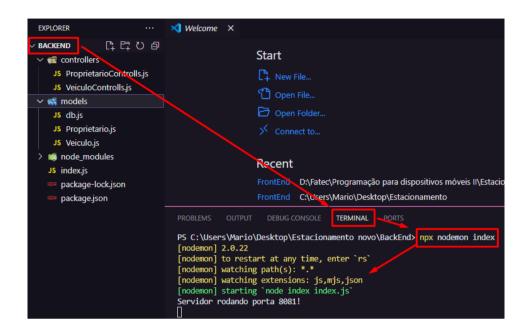
# Professor Mário de Jesus



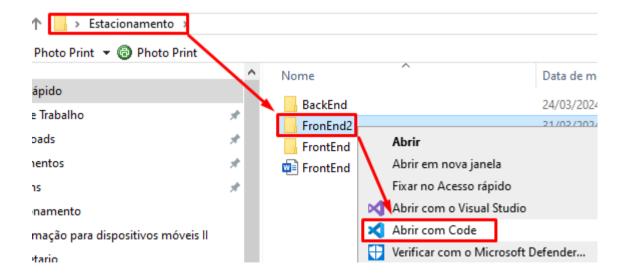
How to make API calls in React Native Apps

## Inicie seu servidor Back End

Antes de iniciarmos, **execute** sua **API back end** com o comando **npx nodemon index** 

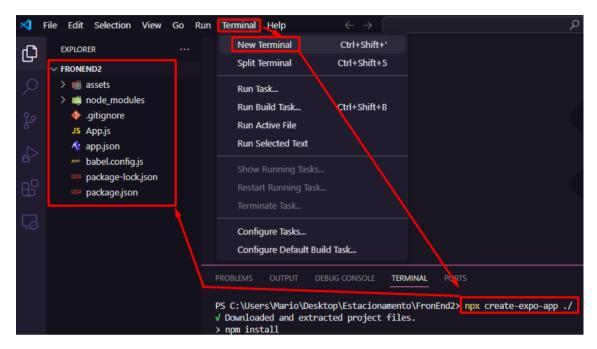


Crie a pasta FrontEnd2 dentro da pasta Estacionamento e abra ela com o Visual Studio Code



## Criando o projeto na pasta frontend.

Abra o terminal do vs code e digite npx create-expo-app./ para criar o projeto diretamente na pasta frontend.



## Instalando as dependências do Projeto

Depois de terminada a criação do projeto escreva

#### npm run web

Clique Y para ele rodar na porta 8082

Verifique as dependências necessárias para rodar o App na web e faça a instalação

npx expo install react-native-web@~0.19.6 react-dom@18.2.0 @expo/metro-runtime@~3.1.3



# Instalando as dependências de navegação entre telas e utilização de API com AXIOS

Instale os pacotes necessários em seu projeto React Native:

## npm install @react-navigation/native

```
PS C:\Users\Mario\Desktop\Estacionamento\FronEnd2> npm install @react-navigation/native

added 13 packages, and audited 1188 packages in 11s

66 packages are looking for funding
    run `npm fund` for details

5 moderate severity vulnerabilities

To address all issues (including breaking changes), run:
    npm audit fix --force

Run `npm audit` for details.

PS C:\Users\Mario\Desktop\Estacionamento\FronEnd2>
```

#### npx expo install react-native-screens react-native-safe-area-context

```
PS C:\Users\Mario\Desktop\Estacionamento\FronEnd2>
npx expo install react-native-screens react-native-safe-area-context
> Installing 2 SDK 50.0.0 compatible native modules using npm
> npm install

added 4 packages, and audited 1192 packages in 6s

66 packages are looking for funding
    run `npm fund` for details

5 moderate severity vulnerabilities

To address all issues (including breaking changes), run:
    npm audit fix --force

Run `npm audit` for details.

PS C:\Users\Mario\Desktop\Estacionamento\FronEnd2>
```

#### npm install axios

```
PS C:\Users\Mario\Desktop\Estacionamento\FronEnd2> npm install axios

added 4 packages, and audited 1196 packages in 5s

67 packages are looking for funding
   run `npm fund` for details

5 moderate severity vulnerabilities

To address all issues (including breaking changes), run:
   npm audit fix --force

Run `npm audit` for details.
PS C:\Users\Mario\Desktop\Estacionamento\FronEnd2>
```

#### npm install @react-navigation/stack

```
PS C:\Users\Mario\Desktop\Estacionamento\FronEnd2> npm install @react-navigation/stack

added 13 packages, and audited 1209 packages in 18s

67 packages are looking for funding
    run `npm fund` for details

5 moderate severity vulnerabilities

To address all issues (including breaking changes), run:
    npm audit fix --force

Run `npm audit` for details.

PS C:\Users\Mario\Desktop\Estacionamento\FronEnd2>
```

#### npm install react-native-elements --save

```
PS C:\Users\Mario\Desktop\Estacionamento\FronEnd2> npm install react-native-elements --save

added 16 packages, and audited 1225 packages in 16s

67 packages are looking for funding
    run `npm fund` for details

5 moderate severity vulnerabilities

To address all issues (including breaking changes), run:
    npm audit fix --force

Run `npm audit` for details.

PS C:\Users\Mario\Desktop\Estacionamento\FronEnd2>
```

#### npm install react-native-vector-icons --save

```
PS C:\Users\Mario\Desktop\Estacionamento\FronEnd2> npm install react-native-vector-icons ---save

up to date, audited 1225 packages in 3s

67 packages are looking for funding
    run `npm fund` for details

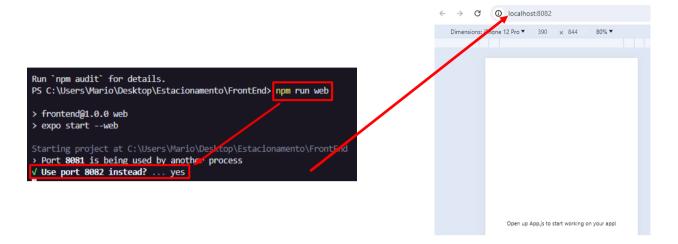
5 moderate severity vulnerabilities

To address all issues (including breaking changes), run:
    npm audit fix --force

Run `npm audit` for details.
PS C:\Users\Mario\Desktop\Estacionamento\FronEnd2>
```

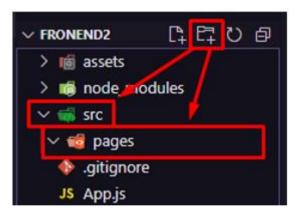
## Rodando a aplicação

Rode a Aplicação com o comando **npm run web** 

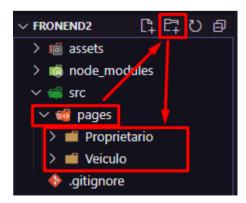


## Criando a estrutura do projeto

No diretório raiz crie a pasta src e dentro da pasta src crie a pasta pages



Dentro da pasta pages crie as pastas Proprietario e Veiculo



## Criando o estilo do proprietário

Agora vamos criar um o arquivo styles.js dentro da pasta Proprietário

```
∨ FRONEND2
               回の哲却
                               src > pages > Proprietario > JS styles.js > 🙉 styles > 🔑 text
                                      import { StyleSheet } from 'react-native';
 > 🔞 assets
 > node modules
                                      const styles = StyleSheet.create({
 ∨ 륣 src
                                          container: {
  flex: 1,
   🗸 📹 Proprietario
                                              maxHeight: '800px',
      JS styles.js
                                              overflow: 'auto'
   > 🔳 Veiculo
                                          text: {
   .gitignore
                                              marginTop: 25,
   JS App.js
                                              marginBottom: 15,
   app.json
                                              fontSize: 25,
   babel.config.js
                                13
                                              fontWeight: "bold",
   package-lock.json
   package.json
                                          input: {
                                              backgroundColor: "#FFF",
                                              borderWidth: 1,
                                              borderColor: "#DDD",
                                              borderRadius: 5,
                                              width: "90%",
                                              padding: 10,
                                              fontSize: 18,
                                          areaBtn: {
                                              alignItems: "center",
                                              flexDirection: "row",
                                              marginTop: 15,
                                              justifyContent: "space-around",
                                          botao: {
                                              height: 50,
                                              justifyContent: "center",
                                              alignItems: "center",
                                              padding: 15,
                                              borderRadius: 5,
                                          botaoText: {
                                              fontSize: 22,
                                              color: "#FFF",
                                      });
                                      export default styles;
```

## Código completo do styles.js

```
import { StyleSheet } from 'react-native';
const styles = StyleSheet.create({
    container: {
        flex: 1,
        maxHeight: '800px',
        overflow: 'auto'
    },
    text: {
        marginTop: 25,
        marginBottom: 15,
        fontSize: 25,
        fontWeight: "bold",
    },
    input: {
        backgroundColor: "#FFF",
        borderWidth: 1,
        borderColor: "#DDD",
        borderRadius: 5,
        width: "90%",
        padding: 10,
        fontSize: 18,
    },
    areaBtn: {
        alignItems: "center",
        flexDirection: "row",
        marginTop: 15,
        justifyContent: "space-around",
    },
    botao: {
        height: 50,
        justifyContent: "center",
        alignItems: "center",
        padding: 15,
        borderRadius: 5,
    },
    botaoText: {
        fontSize: 22,
        color: "#FFF",
    },
});
export default styles;
```

## Criando o arquivo Proprietario Edit.js (Editar)

Dentro da pasta Proprietario crie o arquivo Proprietario Edit. js e digite:

```
import React, { useState } from 'react';
                     日
日
日
日
日

√ FRONEND2

                                               import { View, Text, TextInput, SafeAreaView, Pressable } from 'react-native';
  > 🕫 assets
                                               import axios from 'axios';
                                               import styles from './styles.js';
  > 👼 node_modules
  ∨ 륣 src
   const [proprietarios, setProprietarios] = useState(route.params ? route.params : {})
    🗸 📹 Proprietario
        JS ProprietarioEdit.js
                                                       e.preventDefault();
         JS styles.js
                                                         await axios.put(`http://localhost:8081/proprietario/\{\) proprietarios.id_proprietario}`, proprietarios);
                                                         window.location.reload()
                                                       } catch (err) {
                                                         console.log(err);
                                                       <SafeAreaView style={styles.container}>
                                                           <View style={{ alignItems: "center" }}>
                                                               <Text style={styles.text}>Identificação</Text>
                                                                   readOnly
                                                                   style={styles.input}
                                                                   onChangeText={id_proprietario => setProprietarios({ ...proprietarios, id_proprietario })}
                                          30
                                                                   value={proprietarios.id_proprietario}
                                                               <Text style={styles.text}>Digite seu nome</Text>
                                                                   style={styles.input}
                                                             <Text style={styles.text}>Digite seu CPF</Text>
                                                                style={styles.input}
                                                                onchangeText={cpf => setProprietarios({ ...proprietarios, cpf })}
value={proprietarios.cpf}
                                                                style={[styles.botao, { backgroundColor: "#1d75cd" }]}
                                                                onPress={handleClick}
                                                                <Text style={styles.botaoText}>Alterar</Text>
                                                             </pressable ></pressable >
                                                         </View>
```

#### Código do arquivo Proprietario Edit.js

```
import React, { useState } from 'react';
import { View, Text, TextInput, SafeAreaView, Pressable } from 'react-
native';
import axios from 'axios';
import styles from './styles.js';
export default ({ route, navigation }) => {
    const [proprietarios, setProprietarios] = useState(route.params ?
route.params : {})
    const handleClick = async (e) => {
        e.preventDefault();
        try {
          await
axios.put(`http://localhost:8081/proprietario/${proprietarios.id_propriet
ario}`, proprietarios);
          window.location.reload()
        } catch (err) {
          console.log(err);
      };
    return (
        <SafeAreaView style={styles.container}>
            <View style={{ alignItems: "center" }}>
                <Text style={styles.text}>Identificação</Text>
                <TextInput
                    readOnly
                    style={styles.input}
                    onChangeText={id_proprietario => setProprietarios({
...proprietarios, id proprietario })}
                    value={proprietarios.id_proprietario}
                />
                <Text style={styles.text}>Digite seu nome</Text>
                <TextInput
                    style={styles.input}
                    onChangeText={nome => setProprietarios({
...proprietarios, nome })}
                    value={proprietarios.nome}
                />
                <Text style={styles.text}>Digite seu CPF</Text>
                <TextInput
```

## Criando o arquivo ProprietarioForm.js (Cadastro)

Dentro da pasta Proprietario crie o arquivo ProprietarioForm.js e digite:

```
import { View, Text, SafeAreaView, TextInput, Pressable } from 'react-native'
✓ FRONEND2
              回の哲却
                                   import React, { useState } from "react";
 ) iiii assets
                                   import axios from "axios";
 > 📠 node modules
                                   import styles from './styles.js';
 🗸 🥫 pages
                                   export default function ProprietarioForm() {
  Proprietario
      JS ProprietarioEdit.js
                                       const [nome, setNome] = useState("");
      J$ ProprietarioForm.js
                                       const [cpf, setCPF] = useState("");
      JS styles.js
    Veiculo
                                       const handleClick = async (e) => {
     .gitignore
                                           e.preventDefault();
                                               await axios.post("http://localhost:8081/proprietario", {
                                                    nome: nome,
                                                   cpf: cpf
                                               });
                                               window.location.reload()
                                           } catch (err) {
                                               console.log(err);
                                       };
                             24
                                       return (
                                           <SafeAreaView style={styles.container}>
                                                <View style={{ alignItems: "center" }}>
                                                    <Text style={styles.text}>Digite seu nome</Text>
                                                    <TextInput
                                                        style={styles.input}
                                                        placeholder="Digite seu nome"
                                                        value={nome}
                                                        onChangeText={(texto) => setNome(texto)}
                                                    />
                                                    <Text style={styles.text}>Digite seu CPF</Text>
                                                    <TextInput
                                                        style={styles.input}
                                                        placeholder="Digite seu CPF"
                                                        value={cpf}
                                                        onChangeText={(texto) => setCPF(texto)}
                                                    />
                                                </View>
                                                <View style={styles.areaBtn}>
                                                    ⟨Pressable
                                                        style={[styles.botao, { backgroundColor: "#1d75cd" }]}
                                                        onPress={handleClick}
                                                        <Text style={styles.botaoText}>Cadastrar</Text>
                                                    </pressable ></pressable >
                                                </View>
                                           </SafeAreaView>
```

#### Código do arquivo ProprietarioForm.js

```
import { View, Text, SafeAreaView, TextInput, Pressable } from 'react-
native'
import React, { useState } from "react";
import axios from "axios";
import styles from './styles.js';
export default function ProprietarioForm() {
    const [nome, setNome] = useState("");
    const [cpf, setCPF] = useState("");
    const handleClick = async (e) => {
        e.preventDefault();
        try {
            await axios.post("http://localhost:8081/proprietario", {
                nome: nome,
                cpf: cpf
            });
            window.location.reload()
        } catch (err) {
            console.log(err);
        }
    };
    return (
        <SafeAreaView style={styles.container}>
            <View style={{ alignItems: "center" }}>
                <Text style={styles.text}>Digite seu nome</Text>
                <TextInput
                    style={styles.input}
                    placeholder="Digite seu nome"
                    value={nome}
                    onChangeText={(texto) => setNome(texto)}
                />
                <Text style={styles.text}>Digite seu CPF</Text>
                <TextInput
                    style={styles.input}
                    placeholder="Digite seu CPF"
                    value={cpf}
                    onChangeText={(texto) => setCPF(texto)}
                />
            </View>
            <View style={styles.areaBtn}>
                <Pressable
```

## Criando o arquivo ProprietarioList.js (Listar e deletar)

Dentro da pasta Proprietario crie o arquivo ProprietarioList.js e digite:

```
import {    View, Text, SafeAreaView, Keyboard, FlatList } from 'react-native'
✓ FRONEND2
                     回の哲却
                                                            import React, { useState, useEffect } from "react";
                                                            import axios from "axios";
  > 🕫 assets
                                                            import { Button, Icon, ListItem } from "react-native-elements";
  > 👼 node_modules
                                                           import styles from './styles.js';
 export default ProprietarioList => {

✓ eg pages

   Proprietario
                                                                const [proprietarios, setProprietarios] = useState([]);
        JS ProprietarioEdit.js
         JS ProprietarioForm.js
                                                                const handleDelete = async (id) \Rightarrow \{
        JS ProprietarioList.js
                                                                      await axios.delete(`http://localhost:8081/proprietario/${id}`);
        JS styles.js
                                                                     window.location.reload();
                                                                    } catch (err) {
       ■ Veiculo
                                                                     console.log(err);
                                                                const fetchAllProprietarios = async () => {
                                                                       const res = await axios.get("http://localhost:8081/proprietario");
                                                                        setProprietarios(res.data);
                                                                       Keyboard.dismiss();
                                                                    } catch (err) {
                                                                        console.log(err);
                                                                //Função que inicia a listagem ao abrir o App
useEffect(() => {
                                                      34
                                                                   fetchAllProprietarios();
                                                             function getActions(data) {
                                                                           onPress={() => ProprietarioList.navigation.navigate('ProprietarioEdit', data)}
                                                                          icon={<Icon name="edit" size={25} color="orange"/>}
                                                                          onPress={() => handleDelete(data.id_proprietario)}
                                                                           icon={<Icon name="delete" size={25} color="red"/>}
                                                             function Listagem({ data }) {
                                                                          <ListItem.Title>{data.nome}</ListItem.Title>
                                                                          <ListItem.Subtitle>{data.cpf}</ListItem.Subtitle>
                                                                    {getActions(data)} </ListItem>
                                                                    <SafeAreaView style={styles.container}>
                                                                        <View style={{ alignItems: "center" }}>
                                                                             <Text style={styles.text}>Listando os Dados</Text>
                                                                        </View>
                                                                        ≺FlatList
                                                                             keyExtractor={item => item.id}
                                                                             data={proprietarios}
                                                                             renderItem={({ item }) => (<Listagem data={item} />)}
                                                                    </safeAreaView>
```

#### Código do arquivo ProprietarioList.js

```
import { View, Text, SafeAreaView, Keyboard, FlatList } from 'react-
native'
import React, { useState, useEffect } from "react";
import axios from "axios";
import { Button, Icon, ListItem } from "react-native-elements";
import styles from './styles.js';
export default ProprietarioList => {
    const [proprietarios, setProprietarios] = useState([]);
    const handleDelete = async (id) => {
        try {
          await axios.delete(`http://localhost:8081/proprietario/${id}`);
          window.location.reload();
        } catch (err) {
          console.log(err);
    };
    const fetchAllProprietarios = async () => {
        try {
            const res = await
axios.get("http://localhost:8081/proprietario");
            setProprietarios(res.data);
            Keyboard.dismiss();
        } catch (err) {
            console.log(err);
        }
    };
    useEffect(() => {
        fetchAllProprietarios();
    }, []);
    function getActions(data) {
        return (
            <>
                <Button
                    onPress={() =>
ProprietarioList.navigation.navigate('ProprietarioEdit', data)}
                   type="clear"
```

```
icon={<Icon name="edit" size={25} color="orange"/>}
            />
            <Button
                onPress={() => handleDelete(data.id_proprietario)}
                type="clear"
                icon={<Icon name="delete" size={25} color="red"/>}
            />
        </>
    );
function Listagem({ data }) {
    return (
        <ListItem bottomDivider >
            <ListItem.Content>
                <ListItem.Title>{data.nome}</ListItem.Title>
                <ListItem.Subtitle>{data.cpf}</ListItem.Subtitle>
            </ListItem.Content>
            {getActions(data)}
        </ListItem>
    );
return (
    <SafeAreaView style={styles.container}>
        <View style={{ alignItems: "center" }}>
            <Text style={styles.text}>Listando os Dados</Text>
        </View>
        <FlatList
            keyExtractor={item => item.id}
            data={proprietarios}
            renderItem={({ item }) => (<Listagem data={item} />)}
        />
    </SafeAreaView>
```

## Criando o arquivo VeiculoList.js

Dentro da pasta Veiculo crie o arquivo VeiculoList.js e digite:

## Código do arquivo VeiculoList.js

## Criando a pasta assets

**Dentro** da **pasta src crie** a pasta **assets**, copie a imagem do estacionamento e cole nela.



## Criando o arquivo Home.js

Dentro da pasta pages crie o arquivo Home.js e digite:

```
import { View, Image, Text, TouchableOpacity, StyleSheet } from 'react-native';
                  ほいは
✓ FRONEND2
                                         import React from 'react'
 > 🔞 assets
                                         const Home = ({ navigation }) => {
 > 🐞 node_modules
∨ 📹 src
                                             const handleButtonClick = (option) => {
 if (option === 'Proprietario') {
   > 🔳 Proprietario
                                                     navigation.navigate('ProprietarioList');
   > 🔳 Veiculo
                                                 else if (option === 'Veiculo') {
    JS Home.js
                                                     navigation.navigate('VeiculoList');
    .gitignore
   JS App.js
                                                 <View style={styles.container}>
                                                    <View style={styles.imageContainer}>
                                                        <Image source={require('../assets/estacionamento.png')} style={styles.image} />
                                                     <View style={styles.buttonContainer}>
                                                        <TouchableOpacity style={styles.button} onPress={() => handleButtonClick('Proprietario')}>
                                                            <Text style={styles.buttonText}>Proprietario</Text>
                                                        </TouchableOpacity>
                                                         <TouchableOpacity style={styles.button} onPress={() => handleButtonClick('Veiculo')}>
                                                            <Text style={styles.buttonText}>Veiculo</Text>
                                         const styles = StyleSheet.create({
                                             container: {
                                               flex: 1
                                             imageContainer: {
                                               flex: 0.4,
                                               justifyContent: 'flex-end',
                                               alignItems: 'center',
                                             image: {
                                               flex: 1,
                                               resizeMode: 'contain',
                                             buttonContainer: {
                                               flex: 0.5,
                                               justifyContent: 'flex-start',
                                               alignItems: 'center',
                                             button: {
                                               backgroundColor: '#3498db',
                                               borderRadius: 5,
                                              width: '80%', alignItems: 'center',
                                               margin: '20px',
                                             buttonText: {
                                               color: '#fff',
                                               fontSize: 18,
                                         export default Home;
```

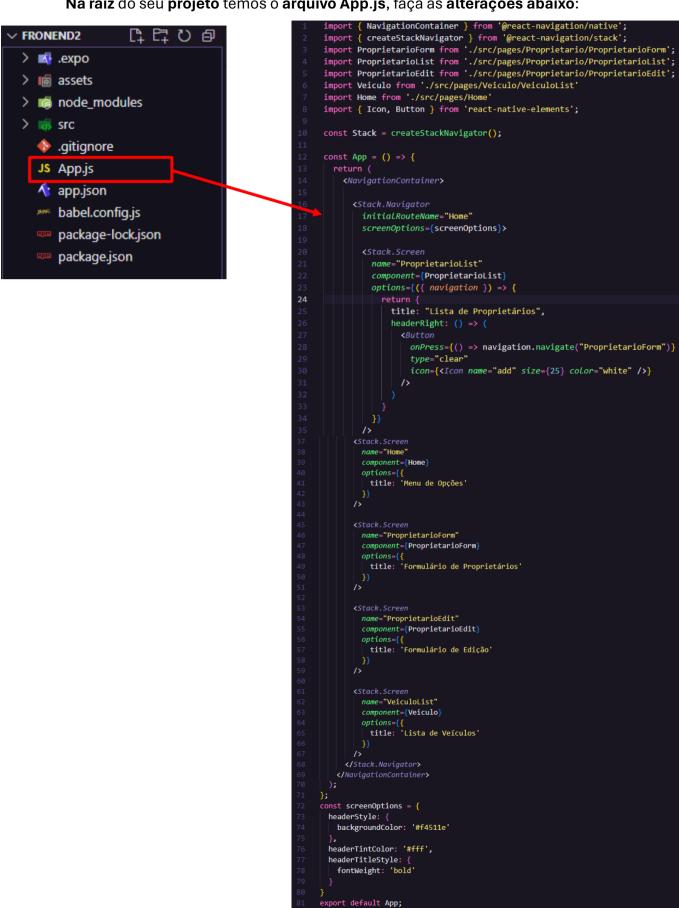
#### Código do arquivo Home.js

```
import { View, Image, Text, TouchableOpacity, StyleSheet } from 'react-
native';
import React from 'react'
const Home = ({ navigation }) => {
    const handleButtonClick = (option) => {
        if (option === 'Proprietario') {
            navigation.navigate('ProprietarioList');
        else if (option === 'Veiculo') {
            navigation.navigate('VeiculoList');
        };
    };
    return (
        <View style={styles.container}>
            <View style={styles.imageContainer}>
                <Image source={require('../assets/estacionamento.png')}</pre>
style={styles.image} />
            </View>
            <View style={styles.buttonContainer}>
                <TouchableOpacity style={styles.button} onPress={() =>
handleButtonClick('Proprietario')}>
                    <Text style={styles.buttonText}>Proprietario</Text>
                </TouchableOpacity>
                <TouchableOpacity style={styles.button} onPress={() =>
handleButtonClick('Veiculo')}>
                    <Text style={styles.buttonText}>Veiculo</Text>
                </TouchableOpacity>
            </View>
        </View>
    );
const styles = StyleSheet.create({
    container: {
      flex: 1
    },
    imageContainer: {
      flex: 0.4,
      justifyContent: 'flex-end',
      alignItems: 'center',
    image: {
      flex: 1,
```

```
resizeMode: 'contain',
    },
   buttonContainer: {
     flex: 0.5,
     justifyContent: 'flex-start',
     alignItems: 'center',
    },
    button: {
     backgroundColor: '#3498db',
     borderRadius: 5,
     width: '80%',
     alignItems: 'center',
     margin: '20px',
    },
   buttonText: {
     color: '#fff',
     fontSize: 18,
   },
  });
export default Home;
```

## Modificando o App.js

Na raiz do seu projeto temos o arquivo App. js, faça as alterações abaixo:

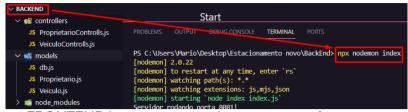


### Código do arquivo App.js

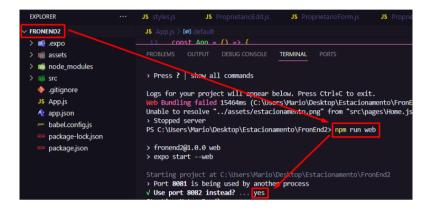
```
import { NavigationContainer } from '@react-navigation/native';
import { createStackNavigator } from '@react-navigation/stack';
import ProprietarioForm from './src/pages/Proprietario/ProprietarioForm';
import ProprietarioList from './src/pages/Proprietario/ProprietarioList';
import ProprietarioEdit from './src/pages/Proprietario/ProprietarioEdit';
import Veiculo from './src/pages/Veiculo/VeiculoList'
import Home from './src/pages/Home'
import { Icon, Button } from 'react-native-elements';
const Stack = createStackNavigator();
const App = () \Rightarrow \{
  return (
    <NavigationContainer>
      <Stack.Navigator
        initialRouteName="Home"
        screenOptions={screenOptions}>
        <Stack.Screen
          name="ProprietarioList"
          component={ProprietarioList}
          options={({ navigation }) => {
            return {
              title: "Lista de Proprietários",
              headerRight: () => (
                <Button
                  onPress={() => navigation.navigate("ProprietarioForm")}
                  type="clear"
                  icon={<Icon name="add" size={25} color="white" />}
                />
          }}
        <Stack.Screen
          name="Home"
          component={Home}
          options={{
            title: 'Menu de Opções'
          }}
        />
        <Stack.Screen
          name="ProprietarioForm"
          component={ProprietarioForm}
```

```
options={{
            title: 'Formulário de Proprietários'
          }}
        />
        <Stack.Screen
          name="ProprietarioEdit"
          component={ProprietarioEdit}
          options={{
            title: 'Formulário de Edição'
         }}
        />
        <Stack.Screen
         name="VeiculoList"
          component={Veiculo}
          options={{
           title: 'Lista de Veículos'
          }}
        />
      </Stack.Navigator>
    </NavigationContainer>
 );
};
const screenOptions = {
 headerStyle: {
   backgroundColor: '#f4511e'
 headerTintColor: '#fff',
 headerTitleStyle: {
   fontWeight: 'bold'
  }
export default App;
```

Lembrando que nossa API BACKEND o servidor precisa estar em execução com o comando **npx nodemon index** 



Execute nosso FRONTEND2 com o comando npm run web



# Saída

