CODE [app.js] [Visual Studio Code]

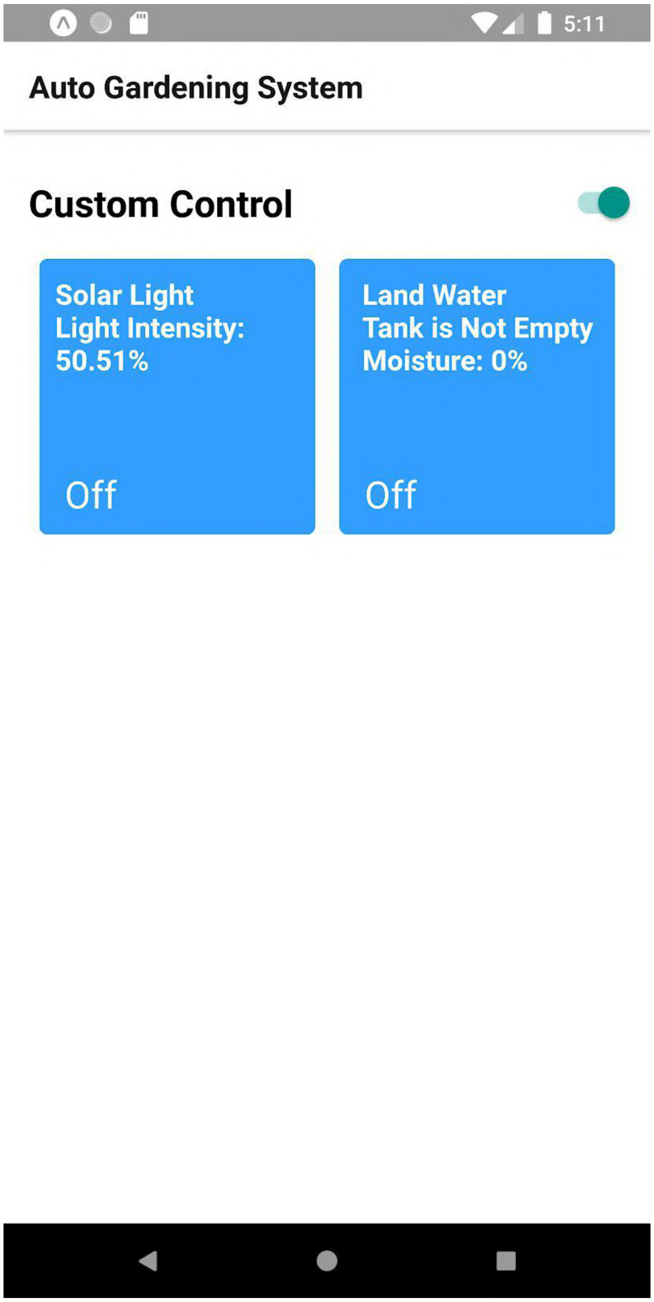
```
import React, {useState, useEffect} from 'react';
import {
  StyleSheet,
  Text,
  View,
  Switch,
  TouchableOpacity}
from 'react-native';
import * as firebase from 'firebase';

const firebaseConfig = {
  apiKey: '<api-key>',
  authDomain: "automatic-gardening-system.firebaseapp.com",
 databaseURL: "https://automatic-gardening-system.firebaseio.com",
  storageBucket: "automatic-gardening-system.appspot.com"
}

firebase.initializeApp(firebaseConfig);
export default function App() {
  const [customControl, setCustom] = useState(0);
  const [ledState, setLED] = useState(0);
  const [landMotor, setLM] = useState(0);
  const [moistureLevel, setML] = useState(0);
  const [lightIntensity, setLI] = useState(0);
  const [waterLevel, setWL] = useState(0);

  changeCustom = (value) => {
    setCustom(value);
    value = value ? 1 : 0;

firebase.database().ref("/gardening-data").child("customControl")
.set(value);
  }

  changeLed = (value) => {
    value = value ? 1 : 0;
firebase.database().ref('/gardening-data').child("ledState").set( value);
  }

  changeLM = (value) => {
    value = value ? 1 : 0;

firebase.database().ref('/gardening-data').child("landMotor").set (value);
  }

  useEffect(() => {

firebase.database().ref('/gardening-data').child("moisture").on(' value', snap => {
      setML(snap.val());
      console.log(snap.val());
    });


firebase.database().ref('/gardening-data').child("lightIntensity" ).on('value', snap => {
      setLI(snap.val());
      console.log(snap.val());
    });


firebase.database().ref('/gardening-data').child("waterLevel").on ('value', snap => {
      setWL(snap.val());
      console.log(snap.val());
    });


firebase.database().ref('/gardening-data').child("ledState").on(' value', snap => {
      setLED(snap.val());
      console.log(snap.val());
    });

firebase.database().ref('/gardening-data').child("landMotor").on( 'value', snap => {
      setLM(snap.val());
      console.log(snap.val());
    });
  }, []);
```

```
return (
  <View style={styles.container}>
    <View style={styles.customStyle}>
      <Text
style={styles.customFont} > Customs Control </Text>
      <Switch
        disabled={false}
        onValueChange={changeCustom}
        value={customControl}
        style={{flex: 1, color: '#339CFF'}}>
      </Switch>
    </View>
    <View style={styles.dataViewStyle}>
     <TouchableOpacity
      style = {
       [styles.ButtonStyle,
{backgroundColor: !customControl ? '#8BBBE6' : '#339CFF'}]
      }
      activeOpacity = {.5}
      disabled = {!customControl}
      onPress = {() => {changeLed(!ledState)}}
     >
      <View
       style={{
        flex: 1,
        display: "flex",
        flexDirection: "column",
        justifyContent: "space-between",
       }}>
        <Text
         style = {{color: "white",
          fontSize: 18,
          fontWeight: "bold"
         }}
        >Solar Light {"\n"}
```

```
Light Intensity: {(lightIntensity*100).toFixed(2) + "%"} </Text>
           <Text style = {{
            color: "white",
            fontSize: 24,
           }}> {ledState? "On": "Off"} </Text>
          </View>
        </TouchableOpacity>

        <TouchableOpacity
         style = {
          [styles.ButtonStyle,
{backgroundColor: !customControl || (waterLevel == 0) ? '#8BBBE6' : '#339CFF'}]
         }
         activeOpacity = {.5}
         disabled = {!customControl || (waterLevel == 0)}
         onPress = {() => {changeLM(!landMotor)}}
        >
         <View
          style={{
           flex: 1,
           display: "flex",
           flexDirection: "column",
           justifyContent: "space-between",
          }}>
           <Text
            style = {{
             color: "white",
             fontSize: 18,
             fontWeight: "bold"
            }}
           > Land Water {"\n"}
{waterLevel ? " Tank is Not Empty\n ": " Tank Is Empty\n "}

Moisture: {moistureLevel + "%"} </Text>

           <Text style = {{
            color: "white",
            fontSize: 24,
           }}> {landMotor? "Irrigating": "Off"} </Text>
          </View>
        </TouchableOpacity>
```

```
    </View>
  </View>
 );
}

const styles = StyleSheet.create({
 container: {
  margin: 10,
  marginTop: 30,
  backgroundColor: '#fff',
 },
 customStyle: {
  display: "flex",
  flexDirection: "row",
  alignItems: "center",
  justifyContent: "center"
 },

 customFont: {
   fontSize: 24,
   fontWeight: "bold",
   flex:1,
 },
 dataViewStyle: {
  display: "flex",
  flexDirection: "row",
  justifyContent: "space-evenly"
 },
 ButtonStyle: {
  padding: 10,
  borderRadius: 5,
  marginTop: 20,
  marginRight: 2.5,
  marginLeft: 2.5,
  height: 175,
  width: 175}});
```

APP



Auto Gardening System

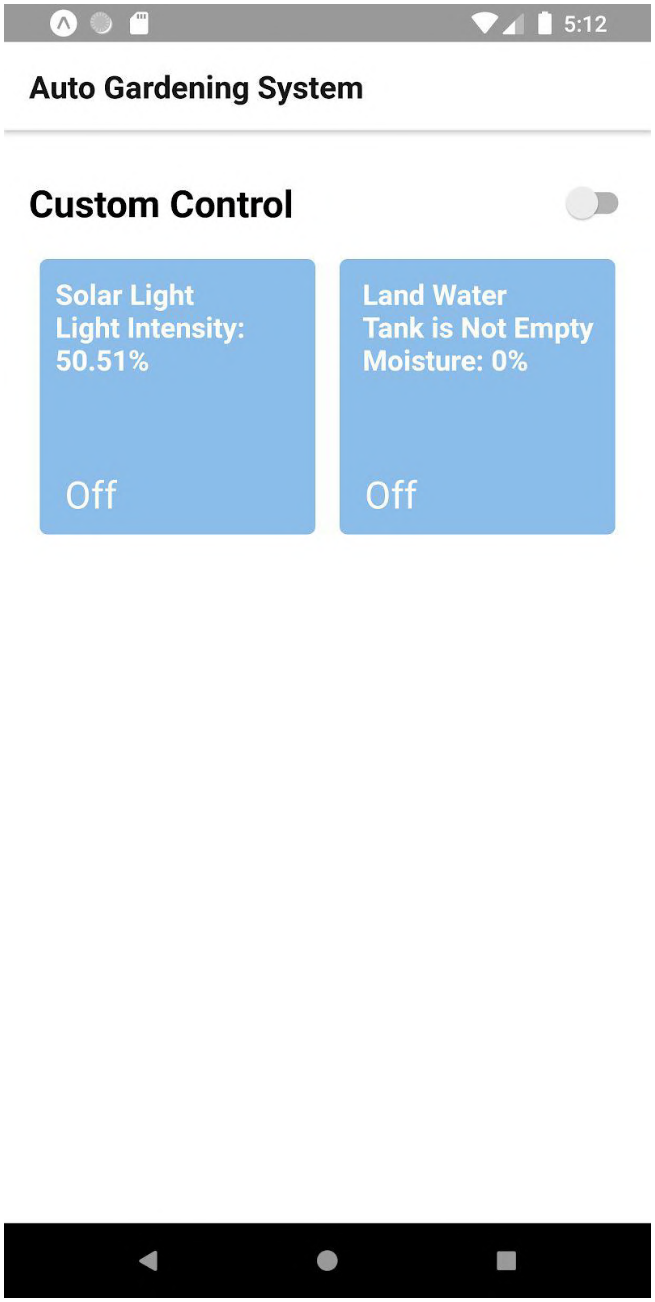
Custom Control

Solar Light
Light Intensity:
50.51%

Off

Land Water
Tank is Not Empty
Moisture: 0%

Off



Auto Gardening System

Custom Control

Solar Light
Light Intensity:
50.51%

Off

Land Water
Tank is Not Empty
Moisture: 0%

Off