Assigment: Mad

Name: M.Uzair Naveed

Reg no: SP22-Bse-038

```
import React, { useState } from 'react';
import { NavigationContainer } from '@react-navigation/native';
import { createStackNavigator } from '@react-navigation/stack';
import { TextInput, Button, Text, View, StyleSheet } from 'react-native';

// Signup Screen
const SignupScreen = ({ navigation }) => {
  const [username, setUsername] = useState('');
  const [password, setPassword] = useState('');
  const [email, setEmail] = useState('');
  const [phone, setPhone] = useState('');

  const validateForm = () => {
    if (username.match(/[^a-zA-Z]/)) {
      alert('Username should contain alphabets only');
      return false;
    }
    if (password.length < 6) {
      alert('Password should be at least 6 characters long');
      return false;
    }
    if (!email.includes('@')) {
      alert('Please enter a valid email');
      return false;
```

```
  }
  if (!phone.match(/^\+92-3\d{2}-\d{7}$/)) {
    alert('Phone number should match +92-3xx-xxxxxxx');
    return false;
  }
  return true;
};

const handleSignup = () => {
  if (validateForm()) {
    navigation.navigate('Login');
  }
};

return (
  <View style={styles.container}>
    <TextInput
      style={styles.input}
      placeholder="Username"
      value={username}
      onChangeText={setUsername}
    />
    <TextInput
      style={styles.input}
      placeholder="Password"
      secureTextEntry
      value={password}
      onChangeText={setPassword}
    />
```

```
      <TextInput
        style={styles.input}
        placeholder="Email"
        value={email}
        onChangeText={setEmail}
      />
      <TextInput
        style={styles.input}
        placeholder="Phone Number (+92-3xx-xxxxxxx)"
        value={phone}
        onChangeText={setPhone}
      />
      <Button title="Signup" onPress={handleSignup} />
    </View>
  );
};

// Login Screen
const LoginScreen = ({ navigation }) => {
  const [username, setUsername] = useState('');
  const [password, setPassword] = useState('');

  const handleLogin = () => {
    if (username && password) {
      navigation.navigate('Profile');
    } else {
      alert('Please enter both username and password');
    }
  };
```

```
  return (
    <View style={styles.container}>
      <TextInput
        style={styles.input}
        placeholder="Username"
        value={username}
        onChangeText={setUsername}
      />
      <TextInput
        style={styles.input}
        placeholder="Password"
        secureTextEntry
        value={password}
        onChangeText={setPassword}
      />
      <Button title="Login" onPress={handleLogin} />
    </View>
  );
};

// Profile Screen
const ProfileScreen = () => {
  return (
    <View style={styles.container}>
      <Text>Welcome to your Profile!</Text>
    </View>
  );
};
```

```
// Navigation setup
const Stack = createStackNavigator();

const App = () => {
  return (
    <NavigationContainer>
      <Stack.Navigator initialRouteName="Signup">
        <Stack.Screen name="Signup" component={SignupScreen} />
        <Stack.Screen name="Login" component={LoginScreen} />
        <Stack.Screen name="Profile" component={ProfileScreen} />
      </Stack.Navigator>
    </NavigationContainer>
  );
};

// Styles for the screens
const styles = StyleSheet.create({
  container: {
    flex: 1,
    justifyContent: 'center',
    padding: 20,
  },
  input: {
    height: 40,
    borderColor: 'gray',
    borderWidth: 1,
    marginBottom: 10,
    paddingLeft: 10,
```

```
  },
});


export default App;
```

Explanation

This code is a React Native application that includes three screens: **Signup**, **Login**, and **Profile**. It uses **React Navigation** to switch between these screens, and **React Hooks** (useState) to manage the state of user inputs.

1. Imports:

The necessary components and libraries are imported:

- **React** and **useState**: React is used for building the UI, and useState is used for managing the state of the form fields.
- **NavigationContainer** and **createStackNavigator**: These are from the React Navigation library. NavigationContainer wraps the app and enables navigation, while createStackNavigator creates a stack navigation structure.
- **TextInput**, **Button**, **Text**, **View**, **StyleSheet**: These are core React Native components for building the UI and styling the app.

2. Signup Screen:

The SignupScreen component handles user sign-up:

- It uses **useState** to track the values of username, password, email, and phone.
- **validateForm**: A function that validates the form inputs before submission. It ensures:
    - The username contains only alphabets.
    - The password is at least 6 characters long.
    - The email includes an "@" symbol.
    - The phone number matches a specific pattern (in this case, a Pakistani phone number format).
- **handleSignup**: This function checks if the form is valid by calling validateForm(). If valid, it navigates the user to the **Login** screen.
- The TextInput components are used to capture the user's input for each field, and a Button is used to trigger the signup process.

3. Login Screen:

The LoginScreen component handles user login:

- It uses **useState** to manage username and password.
- **handleLogin**: This function checks if both the username and password fields are filled. If so, it navigates to the **Profile** screen. If not, it shows an alert asking the user to fill both fields.
- Similar to the signup screen, **TextInput** components are used to collect user input, and a Button triggers the login action.

4. Profile Screen:

The ProfileScreen component is a simple screen that shows a welcome message to the user once they are logged in. It doesn't require any user input.

5. Navigation Setup:

The app uses **Stack Navigator** to create the navigation structure:

- Stack.Navigator: The stack navigator manages the navigation between screens.
- initialRouteName="Signup": The initial screen the app shows is the **Signup** screen.
- Stack.Screen: Defines the different screens in the app: **Signup**, **Login**, and **Profile**.

6. Styles:

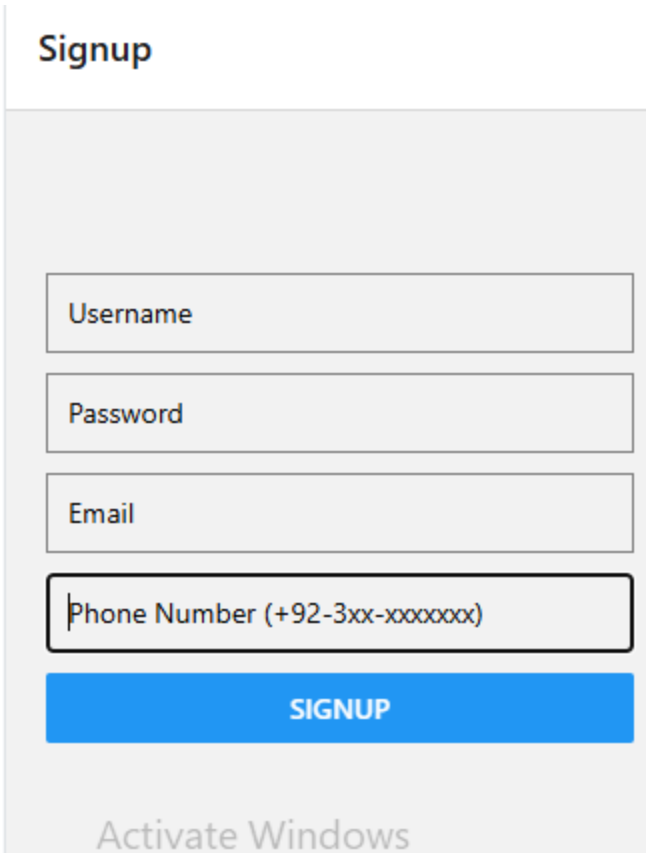
A simple **StyleSheet** is used to style the components:

- container: This style centers the elements on the screen and adds padding around the edges.
- input: Defines the appearance of the input fields, including border color, width, and padding.
- **Button** components are styled with default styling, but the layout of the inputs and buttons is controlled using styles.

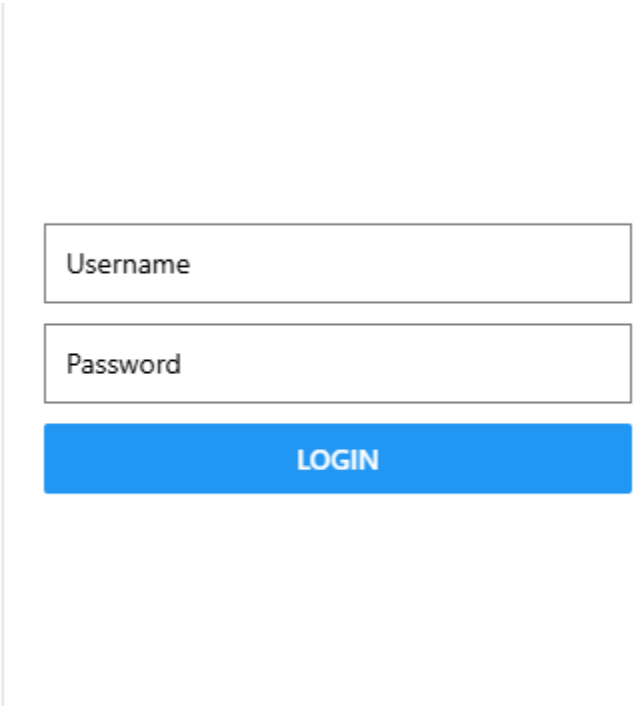
App Component:

The App component wraps the entire application with the NavigationContainer and sets up the navigation stack with the createStackNavigator. It ensures that the app is able to navigate between the **Signup**, **Login**, and **Profile** screens.

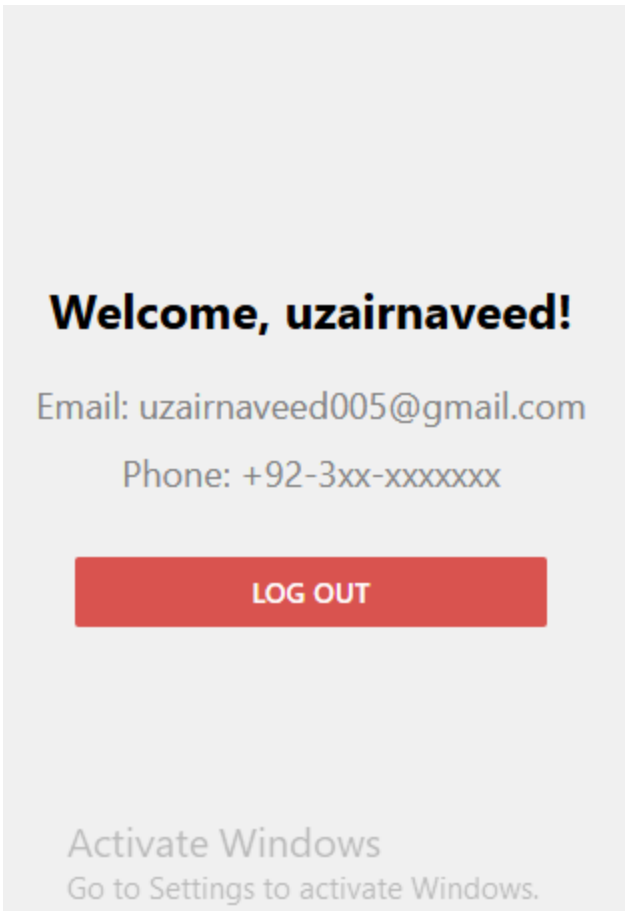
Output


Signup
Username
Password
Email
Phone Number (+92-3xx-xxxxxxx)
SIGNUP
Activate Windows

Login



Profile


Welcome, uzairnaveed!
Email: uzairnaveed005@gmail.com
Phone: +92-3xx-xxxxxxx
LOG OUT
Activate Windows
Go to Settings to activate Windows.