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Assignment: MAD-03

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CODE#

```
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,
    padding: 10,
  },
});
```

```
export default App;
```

EXPLANATION

This React Native code implements a simple multi-screen application using **React Navigation**. Here's a detailed explanation:

App Overview

The app consists of three screens:

1. **Signup Screen:** Allows users to sign up with a username, password, email, and phone number.
2. **Login Screen:** Enables users to log in with their credentials.
3. **Profile Screen:** Displays a welcome message upon successful login.

Key Functionalities

1. Signup Screen

- **State Management:** Uses `useState` hooks to manage the state for the input fields (username, password, email, phone).
- **Validation Logic:**
 - Username must contain only alphabets (`/^[a-zA-Z]/`).
 - Password must be at least 6 characters long.
 - Email must contain '@'.
 - Phone number must follow the format `+92-3xx-xxxxxxx`.
- **Navigation:** If validation passes, navigates to the **Login Screen** using `navigation.navigate('Login')`.

2. Login Screen

- **State Management:** Uses `useState` for username and password.
- **Validation Logic:** Ensures both username and password are entered.
- **Navigation:** Navigates to the **Profile Screen** on successful login.

3. Profile Screen

- A simple screen displaying a welcome message.

Navigation

- **React Navigation:**
 - Uses `@react-navigation/native` for navigation.
 - Implements a stack navigator (`createStackNavigator`) to define the navigation flow:
 - **Initial Route:** Signup screen.
 - Includes Login and Profile screens in the stack.

Styling

- Styles are defined using `StyleSheet.create`:
 - `container`: Centers content and adds padding.
 - `input`: Styles the text input fields with a border, padding, and margin.

Code Flow

1. App starts with the **Signup Screen**.
2. User fills in the form and clicks "Signup":
 - If validation succeeds, navigates to **Login Screen**.
3. On the **Login Screen**, user enters credentials and clicks "Login":
 - If both fields are filled, navigates to **Profile Screen**.
4. The **Profile Screen** displays a welcome message.

This structure demonstrates a basic implementation of form handling, validation, and navigation in a React Native app.