

Here's a clean, minimal setup for a **React Native app with TypeScript** that has **4 screens** and a **bottom navigation bar** using React Navigation.

1. Install dependencies

Run this in your project:

```
npm install @react-navigation/native
npm install @react-navigation/bottom-tabs
npm install react-native-screens react-native-safe-area-context react-native-gesture-handler react-native-reanimated
```

2. Create Screens

screens/HomeScreen.tsx

```
import React from 'react';
import { View, Text, StyleSheet } from 'react-native';

const HomeScreen: React.FC = () => {
  return (
    <View style={styles.container}>
      <Text>Home Screen</Text>
    </View>
  );
};

export default HomeScreen;

const styles = StyleSheet.create({
  container: {
    flex: 1,
    justifyContent: 'center',
    alignItems: 'center',
  },
});
```

screens/ProfileScreen.tsx

```
import React from 'react';
import { View, Text, StyleSheet } from 'react-native';

const ProfileScreen: React.FC = () => {
  return (
    <View style={styles.container}>
      <Text>Profile Screen</Text>
    </View>
  );
};

export default ProfileScreen;

const styles = StyleSheet.create({
  container: {
    flex: 1,
    justifyContent: 'center',
    alignItems: 'center',
  },
});
```

screens/SettingsScreen.tsx

```
import React from 'react';
import { View, Text, StyleSheet } from 'react-native';

const SettingsScreen: React.FC = () => {
  return (
    <View style={styles.container}>
      <Text>Settings Screen</Text>
    </View>
  );
};

export default SettingsScreen;

const styles = StyleSheet.create({
  container: {
    flex: 1,
    justifyContent: 'center',
    alignItems: 'center',
  },
});
```

screens/AboutScreen.tsx

```
import React from 'react';
import { View, Text, StyleSheet } from 'react-native';

const AboutScreen: React.FC = () => {
  return (
    <View style={styles.container}>
      <Text>About Screen</Text>
    </View>
  );
};

export default AboutScreen;

const styles = StyleSheet.create({
  container: {
    flex: 1,
    justifyContent: 'center',
    alignItems: 'center',
  },
});
```

3. Setup Bottom Tab Navigation

App.tsx

```
import React from 'react';
import { NavigationContainer } from '@react-navigation/native';
import { createBottomTabNavigator } from '@react-navigation/bottom-tabs';

import HomeScreen from '../screens/HomeScreen';
import ProfileScreen from '../screens/ProfileScreen';
import SettingsScreen from '../screens/SettingsScreen';
import AboutScreen from '../screens/AboutScreen';

export type RootTabParamList = {
  Home: undefined;
  Profile: undefined;
  Settings: undefined;
  About: undefined;
};

const Tab = createBottomTabNavigator<RootTabParamList>();

const App: React.FC = () => {
  return (
    <NavigationContainer>
      <Tab.Navigator
        screenOptions={{
          headerShown: false,
        }}
      >
        <Tab.Screen name="Home" component={HomeScreen} />
    </NavigationContainer>
  );
};
```

```
        <Tab.Screen name="Profile" component={ProfileScreen} />
        <Tab.Screen name="Settings" component={SettingsScreen} />
        <Tab.Screen name="About" component={AboutScreen} />
      </Tab.Navigator>
    </NavigationContainer>
  );
};

export default App;
```

4. (Optional) Add Icons to Navbar

Install icons:

```
npm install react-native-vector-icons
```

Then update `screenOptions`:

```
import Icon from 'react-native-vector-icons/Ionicons';

<Tab.Navigator
  screenOptions={({ route }) => ({
    tabBarIcon: ({ color, size }) => {
      let iconName: string = 'home';

      if (route.name === 'Home') iconName = 'home';
      else if (route.name === 'Profile') iconName = 'person';
      else if (route.name === 'Settings') iconName = 'settings';
      else if (route.name === 'About') iconName = 'information-circle';

      return <Icon name={iconName} size={size} color={color} />;
    },
  })}
>
```

Result

You now have:

- 4 screens
- Bottom navigation bar
- TypeScript support
- Clean scalable structure

