

React Native Mobile App Project Setup Guide

1. System Requirements

Before setting up your React Native app, ensure your system has the following:

- Node.js: JavaScript runtime. Download from <https://nodejs.org>
- npm or yarn: Package managers to install dependencies.
- Watchman (macOS only): Improves file watching.
Command: `brew install watchman`
- Java Development Kit (JDK): Required for Android builds.
- Android Studio: Needed to emulate and build Android apps.
- Xcode (macOS only): Required to run iOS simulators.

2. Install Expo CLI

Expo CLI is a toolchain for easier development with React Native.

Command: `npm install -g expo-cli`

This installs the Expo CLI globally on your machine.

3. Create a New Project

To create a new Expo-managed React Native project:

Command: `npx create-expo-app MyMobileApp`

This initializes a project named MyMobileApp.

Change directory into the project:

Command: `cd MyMobileApp`

4. Run the App (Expo)

Command: `npx expo start`

Starts the Expo development server and opens DevTools in your browser. You can use an emulator or the Expo app on a mobile device.

5. Install Dependencies

Example: `npm install axios react-navigation react-native-paper`

This installs useful libraries like Axios for HTTP, and navigation/UI tools.

Navigation setup:

Command: `npm install @react-navigation/native`

Command: `npx expo install react-native-screens react-native-safe-area-context react-native-gesture-handler`

6. Run on Android Emulator

Launch the Android emulator via Android Studio, then run:

Command: `npx expo start --android`

This opens the app in the Android emulator.

7. Run on iOS Simulator (macOS only)

Command: `npx expo start --ios`

Opens the app in the iOS simulator (requires Xcode).

8. Build APK or AAB Using EAS

Install EAS CLI:

Command: `npm install -g eas-cli`

Log in to Expo:

Command: `eas login`

Configure the project: