# SPINNING UP A REACT NATIVE APP

## Here are all the necessary requirements to run:

**SYSTEM REQUIREMENTS:**

Operating System Name : Microsoft Windows 11 Pro

Processor: 11th Gen Intel® Core

RAM: 16.0 GB

Storage : 1TB

**INSTALLATION REQUIREMENTS AND CONFIGURATION STEPS:**

This is the step-by-step guide for the installations required to run a react native application

1. The dependencies that need to be installed consists of Node, the React Native command line interface, a JDK and Android Studio. These will be installed sequentially.

NODE, JDK

1. We will use Chocolatey to install Node with this link : <https://chocolatey.org/install>
2. An LTS version of Node should be installed.
3. Through the Chocolatey app, install the Java SE Development Kit(JDK) with the command below in your terminal:

choco install -y nodejs-lts microsoft-openjdk17

ANDROID STUDIO DEVELOPMENT ENVIRONMENT

1. Download Android Studio through this link : <https://developer.android.com/studio>
2. The Android Studio installation wizard should be run and make sure to check these items, Android SDK, Android SDK Platform, Android Virtual Device and Performance (Intel® HAXM) only if you are not already using Hyper-V
3. A React Native app required the Android 13 (Tiramisu) SDK specifically to be used.
4. Open the newly installed Android Studio -> More Actions -> SDK Manager
5. Select the SDK Platforms tab -> Click Show Package Details -> Find Android 13 (Tiramisu) -> Check Android SDK Platform 33 and Intel x86 Atom\_64 System Image
6. Select SDK Tools tab -> check Show Package Details -> Android SDK Build-Tools -> 33.0.0 version
7. Click Apply for the installation to begin.
8. The user environment variables have to be changed
9. Open Windows Control Panel -> User Accounts -> User Accounts -> Change my environment variables -> NEW -> make sure Variable Name = “ANDROID\_HOME” -> Variable value : [paste path to the android SDK here] (The SDK is installed by default at this location “%LOCALAPPDATA%\Android\Sdk”
10. To make sure the new environment variable is added, open powershell and paste:  
    **Get-ChildItem -Path Env:\**
11. Verify ANDROID\_HOME has been added
12. We need to add the platform-tools to the PATH variable
13. Open Windows Control Panel -> User Accounts -> User Accounts -> Change my environment variables -> Select the Path variable -> Click Edit -> Click New and add the path of the platform-tools  
    The default location could be found in this folder: %LOCALAPPDATA%\Android\Sdk\platform-tools

REACT NATIVE CLI

1. Run “npx react-native” to install the current stable version of the CLI
2. Navigate into the folder you want you reactive native client app to exist in and open the command line
3. Run “npx react-native@latest init AwesomeProject” to create a react native app

PREPARING THE ANDROID DEVICE

1. I recommend using an Android Virtual Device which would help to emulate an android device on your computer.
2. Open up android studio and navigate to the AVD Manager -> create a new AVD -> pick any phone -> select “Tiramisu API Level 33” as the image.

RUNNING YOUR REACT NATIVE APPLICATION

1. In your project folder, open up the command line and run “npm start”
2. Create another terminal and run “npm run android” which would pick up a virtual device and it will open up an android emulator.

**TROUBLESHOOTING**

These are the common problems and solutions that occur when trying to spin up a react native app:

* In step(9) if “Intel x86 Atom\_64 System Image” is not available, then use “Google APIs Intel x86 Atom System Image”
* If there has been a previously installed global react native cli package, please remove it so it does not cause unexpected issues by running the command “npm uninstall -g react-native-cli @react-native-community/cli”
* If you do not have HAXM on your device, install HAXM following these instructions “<https://github.com/intel/haxm/wiki/Installation-Instructions-on-Windows>”

More troubleshooting tips coming soon ……

**RESOURCES**

[**https://reactnative.dev/docs/environment-setup?guide=native**](https://reactnative.dev/docs/environment-setup?guide=native)