

Setting up the development environment

- Installing Node
- Installing React-native-cli
- Installing VS Code
- Installing JDK (JDK Version 15)
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Installing Node

- Step 1: Go to <https://nodejs.org/en/download/> and download LTS (Latest Stable Version) of Node js
- Step 2: Double click on the downloaded file.
- Step 3: Click on install

Installing React-native-cli

- Step 1: After installing NodeJS successfully in your system you can proceed with installation of create-react-native-app (globally as shown below).
- Step 2: Go to terminal and install react native cli globally by entering `npm install -g react-native-cli`

Installing VS Code

- Step 1: Go to <https://code.visualstudio.com/download> and download Visual Studio Code
- Step 2: Double click on the downloaded file and install VS Code

Installing JDK

- Step 1: Go to <https://www.oracle.com/java/technologies/javase/jdk15-archive-downloads.html>
- Step 2: Double click on the downloaded file and install VS Code
- Step 3: Open the downloaded file and install JDK version 15

Configure the JAVA_HOME environment variable

- Step 1: In the windows search bar type Edit the system environment. and click on Edit the system environment.
- Step 2: Now click on the Environment Variable.
- Step 3: Now in system variables click on new
- Step 4: Now in the variable name type JAVA_HOME and in variable value give the path to your JDK.
- Step 5: Now click on "ok".
- Step 6: Now in user variable double click on path and click on "New"
- Step 7: Now give your JDK path and click enter button and click on "ok"

Installing and setup Android Studio

- Step 1: Visit the web page <https://developer.android.com/studio/> and download android studio.
- step 2: After downloading the installation file of it, double click on it and proceed with the installation.
- Step3: After installing, open Android Studio and click on create an empty project and in the main window click on Tools and click on SDK Manager. Select the "SDK Platforms" tab from within the SDK Manager, then check the box next to "Show Package Details" in the bottom right corner. Look for and expand the Android 10 (Q) entry, then make sure the following items are checked:
- Android SDK Platform 29
 - Intel x86 Atom_64 System Image or Google APIs Intel x86 Atom System Image
- Next, select the "SDK Tools" tab and check the box next to "Show Package Details" here as well. Look for and expand the "Android SDK Build-Tools" entry, then make sure that 29.0.2 is selected. Finally, click "Apply" to download and install the Android SDK and related build tools.
- Step3: Now go to AVD manager in tools and click on create a new virtual device. Now you can choose and download or create a new Virtual device.

Configure the ANDROID_HOME environment variable

- Step 1: In the windows search bar type Edit the system environment. and click on Edit the system environment.
- Step 2: Now click on the environment variable.
- Step 3: Now in system variables click on new
- Step 4: Now in the variable name type ANDROID_HOME and in variable value give the path to your Android SDK. The SDK is installed, by default, at the following location
%LOCALAPPDATA%\Android\Sdk
- Step 5: Now click on "ok".

Step 6: Now in user variable double click on path and click on "New"

Step 7: Now give your SDK path and click enter button and click on "ok"

Creating a new application

Step 1: create a new folder and name it as your wish.

Step 2: now go to terminal and go to the folder that you create before

Step 3: and type the command `npm react native init ProjectName`

Preparing the Android device

You will need an Android device to run your React Native Android app. This can be either a physical Android device, or more commonly, you can use an Android Virtual Device which allows you to emulate an Android device on your computer. Either way, you will need to prepare the device to run Android apps for development.

Using a virtual device

If you use Android Studio to open `/AwesomeProject/android`, you can see the list of available Android Virtual Devices (AVDs) by opening the "AVD Manager" from within Android Studio.

Look for an icon that looks like this:

If you have recently installed Android Studio, you will likely need to create a new AVD.

Select "Create Virtual Device...", then pick any Phone from the list and click "Next",

then select the Q API Level 29 image. If you don't have HAXM installed,

click on "Install HAXM" or follow these instructions to set it up, then go back to the AVD Manager.

Click "Next" then "Finish" to create your AVD.

At this point you should be able to click on the green triangle button next to your AVD to launch it, then proceed to the next step.

Running your React Native application

Step 1: Take visual Studio code and open your react native project folder

Step 2: Click on Terminal and click on new terminal

Step 3: Type the commands

1. `npm cache clean --force`

2. `npm install`

3. `React native start`

Step 4: Now open a new terminal by clicking the plus button and type the Command `"React-native run-android"`

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Modifying your app

- Now that you have successfully run the app, let's modify it.
- Open App.js in your text editor of choice and edit some lines.
- Save the code and watch the change in your device