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⤢  › **The Basics**

# Getting Started                                    EDIT

This page will help you install and build your first React Native app. If you already have React Native installed, you can skip ahead to the Tutorial.

| Quick Start | Building Projects with Native Code |

Follow these instructions if you need to build native code in your project. For example, if you are integrating React Native into an existing application, or if you "ejected" from Create React Native App, you'll need this section.

The instructions are a bit different depending on your development operating system, and whether you want to start developing for iOS or Android. If you want to develop for both iOS and Android, that's fine - you just have to pick one to start with, since the setup is a bit different.

Development OS: | macOS | Windows | Linux |  Target OS: | iOS | Android |

## Installing dependencies

You will need Node, the React Native command line interface, Python2, a JDK, and Android Studio.

While you can use any editor of your choice to develop your app, you will need to install Android Studio in order to set up the necessary tooling to build your React Native app for Android.

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React Native also requires a recent version of the Java SE Development Kit (JDK), as well as Python 2. Both can be installed using Chocolatey.

Open an Administrator Command Prompt (right click Command Prompt and select "Run as Administrator"), then run the following command:

```
choco install -y nodejs.install python2 jdk8
```

If you have already installed Node on your system, make sure it is Node 8.3 or newer. If you already have a JDK on your system, make sure it is version 8 or newer.

> You can find additional installation options on Node's Downloads page.

## The React Native CLI

Node comes with npm, which lets you install the React Native command line interface.

Run the following command in a Command Prompt or shell:

```
npm install -g react-native-cli
```

> If you get an error like `Cannot find module 'npmlog'` , try installing npm directly: `curl -0 -L https://npmjs.org/install.sh | sudo sh` .

## Android development environment

Setting up your development environment can be somewhat tedious if you're new to Android development. If you're already familiar with Android development, there are a few things you may need to configure. In either case, please make sure to carefully follow the next few steps.

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- Android SDK
- Android SDK Platform
- Performance (Intel ® HAXM)
- Android Virtual Device

Then, click "Next" to install all of these components.

> If the checkboxes are grayed out, you will have a chance to install these
> components later on.

Once setup has finalized and you're presented with the Welcome screen, proceed to the next step.

## 2. Install the Android SDK

Android Studio installs the latest Android SDK by default. Building a React Native app with native code, however, requires the `Android 6.0 (Marshmallow)` SDK in particular. Additional Android SDKs can be installed through the SDK Manager in Android Studio.

The SDK Manager can be accessed from the "Welcome to Android Studio" screen. Click on "Configure", then select "SDK Manager".
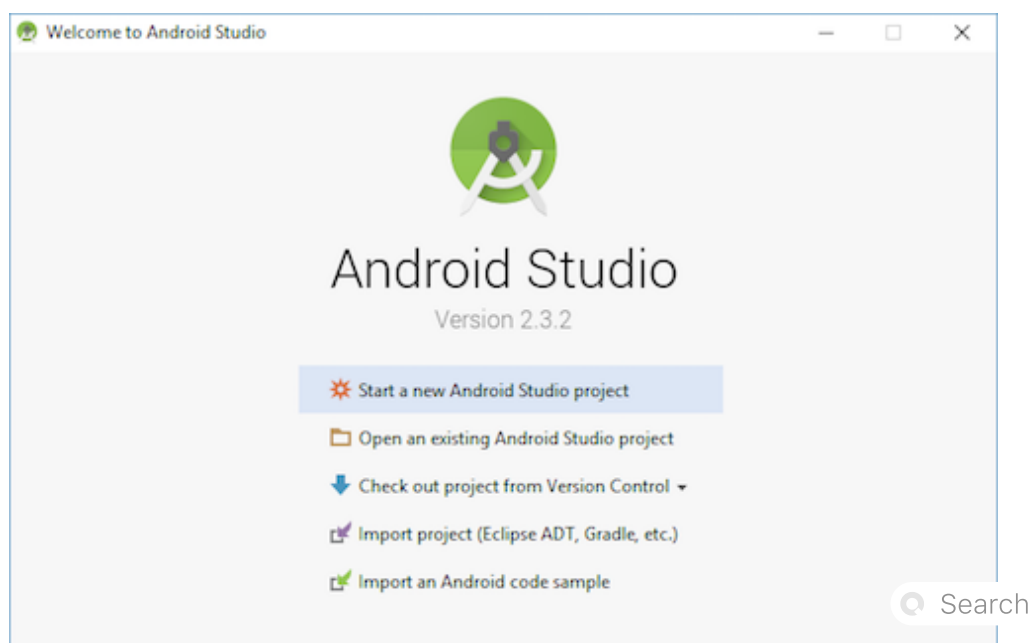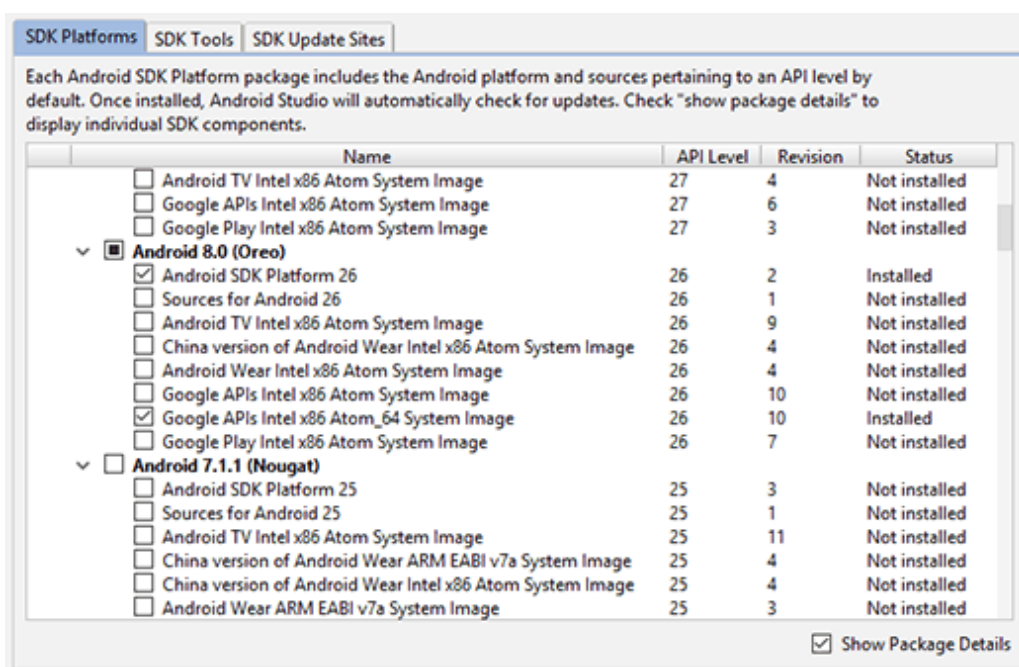
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dialog, under **Appearance & Behavior** → **System Settings** → **Android SDK**.

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 6.0 (Marshmallow)` entry, then make sure the following items are all checked:
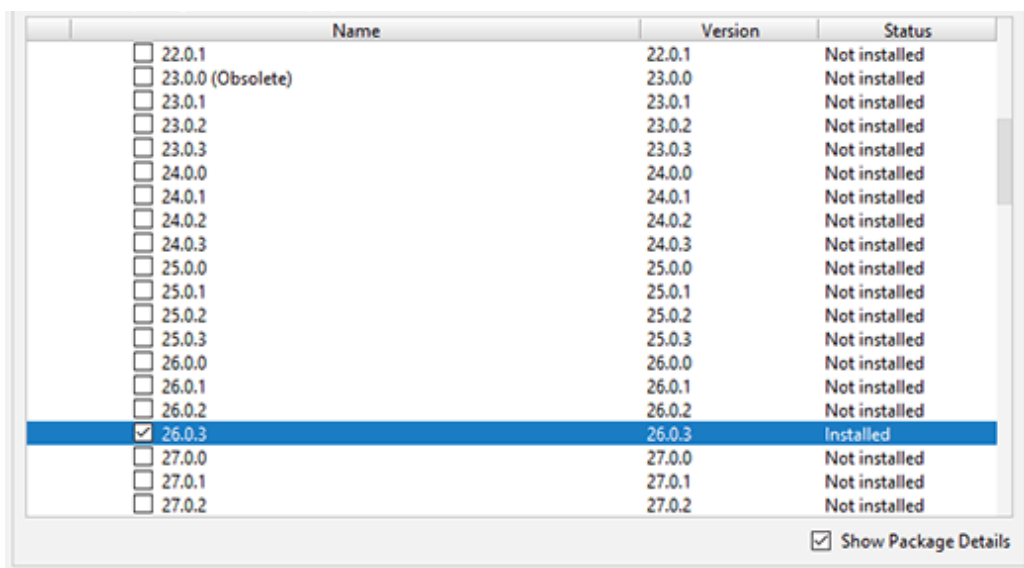
- `Google APIs`
- `Android SDK Platform 23`
- `Intel x86 Atom_64 System Image`
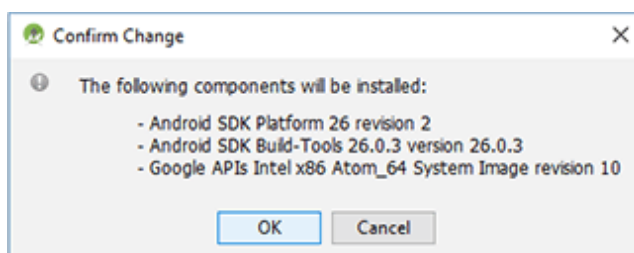- `Google APIs Intel x86 Atom_64 System Image`



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 `23.0.1` is selected.

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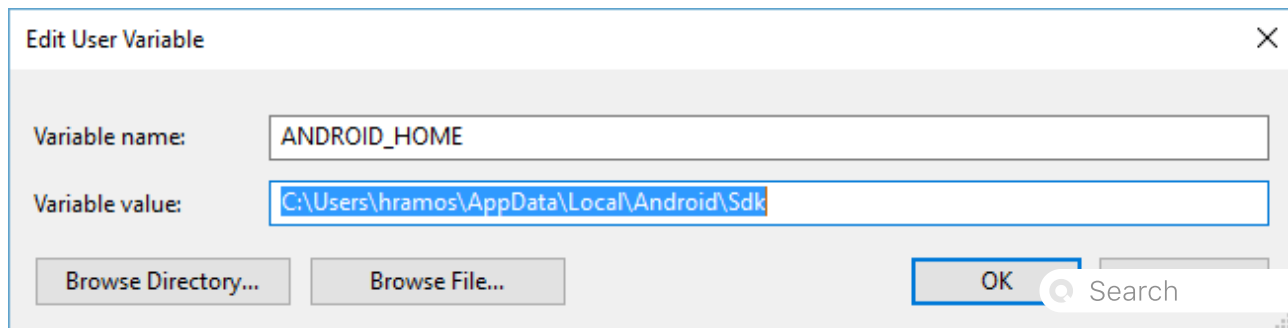
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Finally, click "Apply" to download and install the Android SDK and related build tools.



### 3. Configure the ANDROID_HOME environment variable

The React Native tools require some environment variables to be set up in order to build apps with native code.

Open the System pane under **System and Security** in the Windows Control Panel, then click on **Change settings…**. Open the **Advanced** tab and click on **Environment Variables…**. Click on **New…** to create a new `ANDROID_HOME` user variable that points to the path to your Android SDK:



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You can find the actual location of the SDK in the Android Studio "Preferences" dialog, under **Appearance & Behavior** → **System Settings** → **Android SDK**.

Open a new Command Prompt window to ensure the new environment variable is loaded before proceeding to the next step.

# Creating a new application

Use the React Native command line interface to generate a new React Native project called "AwesomeProject":

```
react-native init AwesomeProject
```

This is not necessary if you are integrating React Native into an existing application, if you "ejected" from Create React Native App, or if you're adding Android support to an existing React Native project (see Platform Specific Code).

# 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 physical device

If you have a physical Android device, you can use it for development in place of an AVD by plugging it in to your computer using a USB cable and following the instructions here.
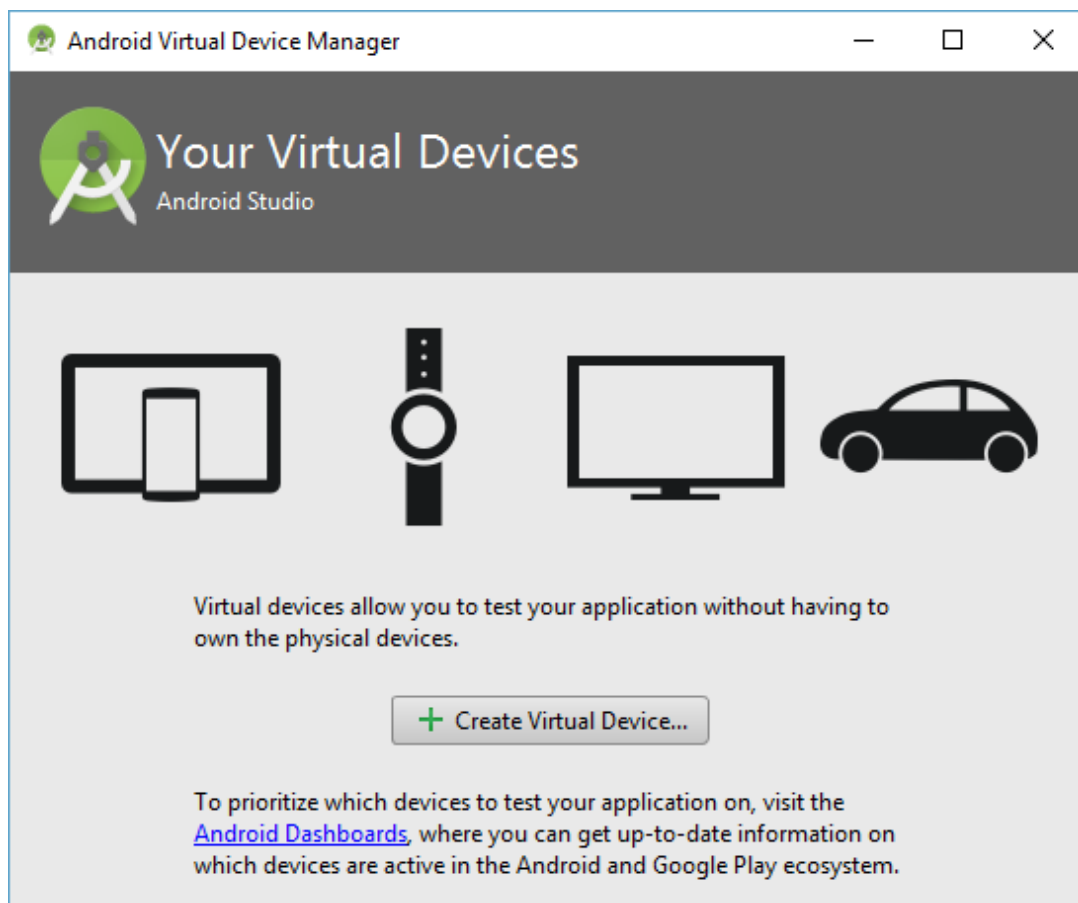
## Using a virtual device

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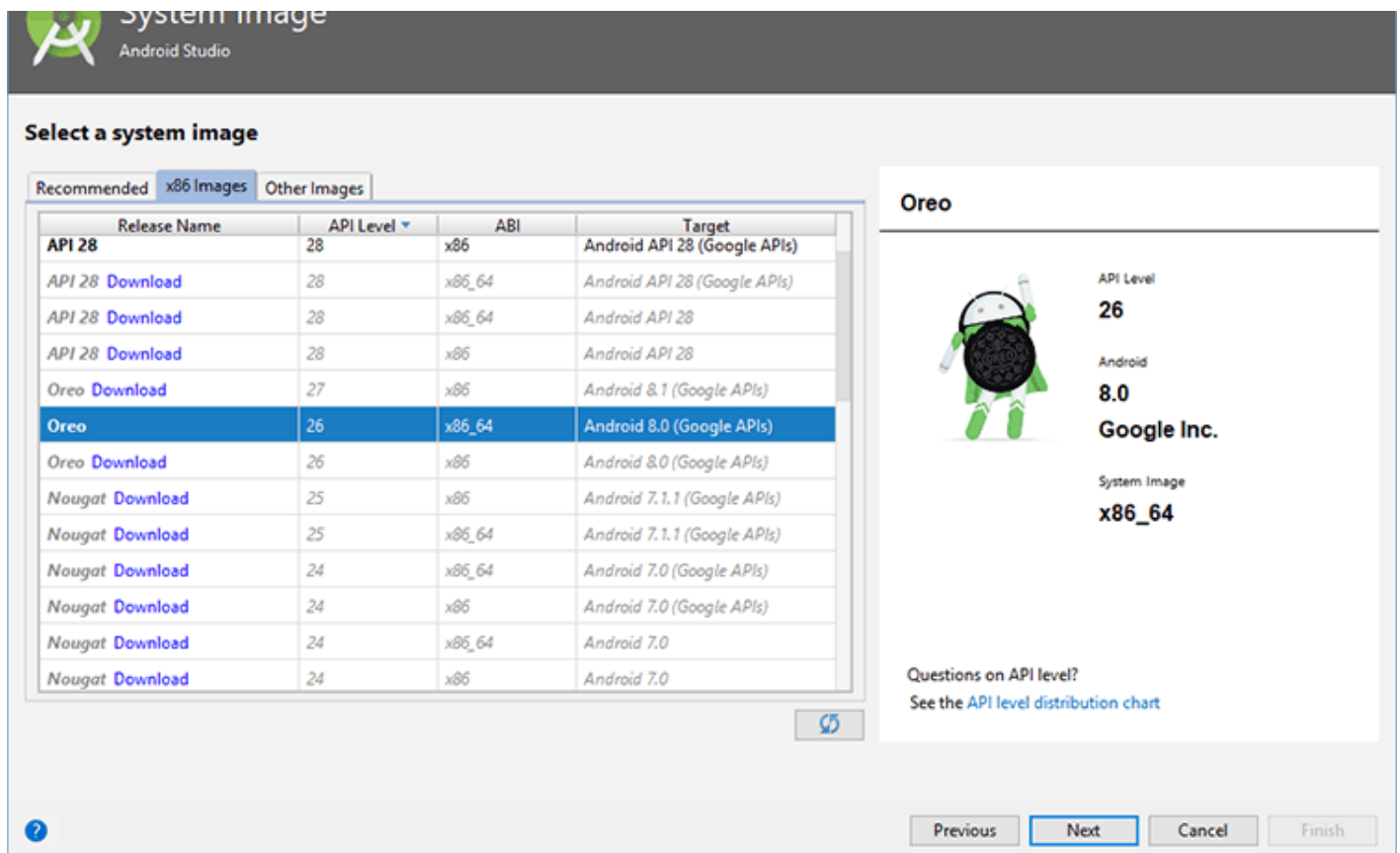If you have just installed Android Studio, you will likely need to create a new AVD. Select "Create Virtual Device...", then pick any Phone from the list and click "Next".

Select the "x86 Images" tab, then look for the **Marshmallow** API Level 23, x86_64 ABI image with a Android 6.0 (Google APIs) target.

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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.
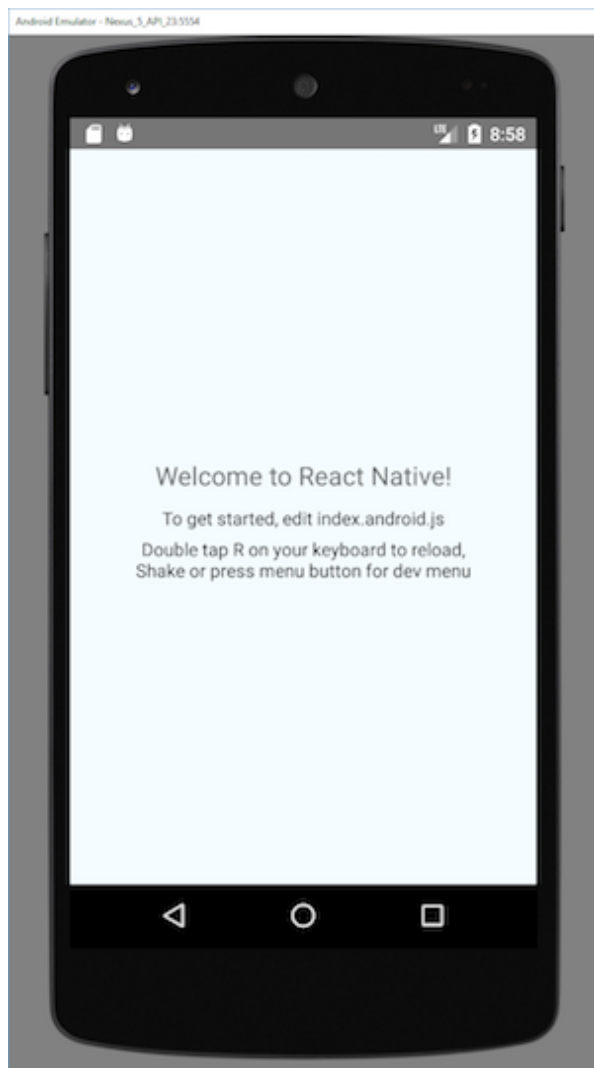
# Running your React Native application

Run `react-native run-android` inside your React Native project folder:

```
cd AwesomeProject
react-native run-android
```

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`react-native run-android` is just one way to run your app - you can also run it directly from within Android Studio or Nuclide.

> If you can't get this to work, see the Troubleshooting page.

## 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.
- Press the `R` key twice or select `Reload` from the Developer Menu ( `Ctrl` `M` ) to see your changes!

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Congratulations! You've successfully run and modified your first React Native app.

# Now what?

- Turn on Live Reload in the Developer Menu. Your app will now reload automatically whenever you save any changes!

- If you want to add this new React Native code to an existing application, check out the Integration guide.

If you're curious to learn more about React Native, continue on to the Tutorial.

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