

The Quizzler: Part 3



### Emulate Your First App

We can test our application on an Android phone or on our computer with a virtual device emulator.

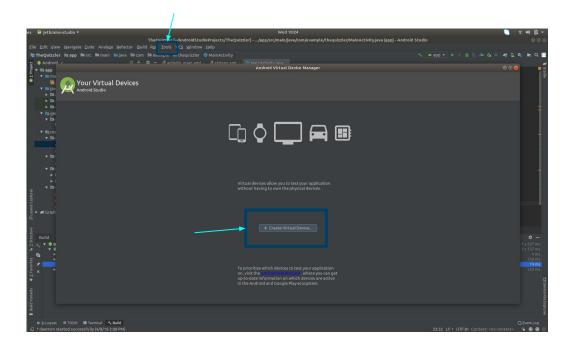
Create the Android Virtual Device from the menu options: Tools → AVD Manager

A Popup will appear, displaying the AVD Manager



# **AVD Manager**

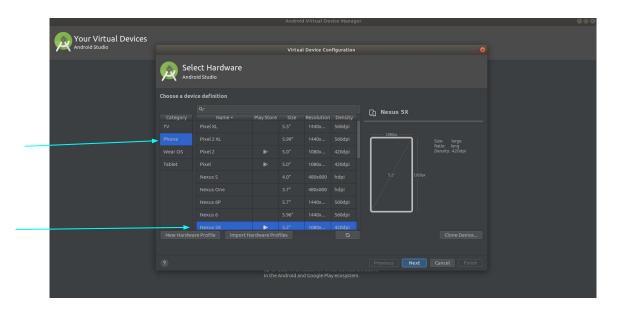
click `+Create Virtual Device`





#### Select Hardware to Emulate

We will emulate a Nexus 5X

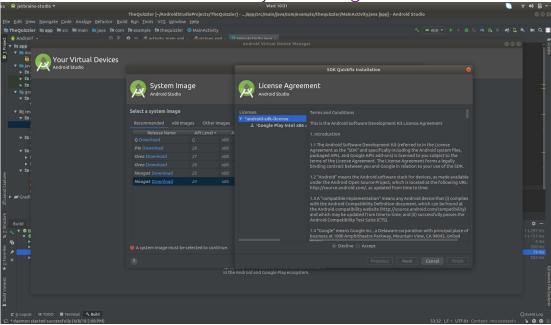




### Download a System Image

Download the Nougat x86 v7.0 System Image.

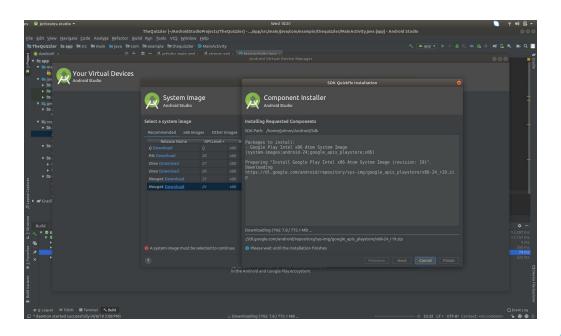
Accept the terms and conditions, click finish and wait for the system image to download.





# Wait for Component Installer to finish

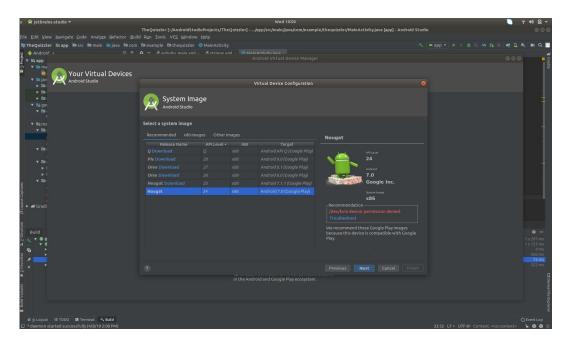
Once the Component Installer is complete, click Finish.





# Click Through System Image Screen

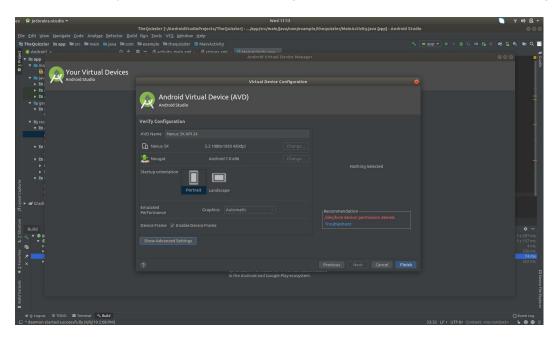
The System Image is ready for final configuration. Click Next to go to the following screen.





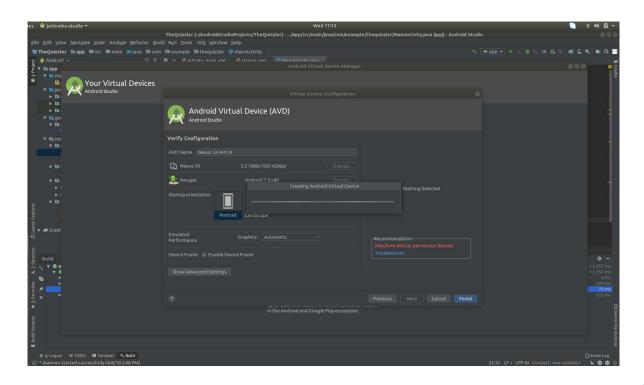
# Finish the Virtual Device Configuration

We can leave all of the default options as they are. Click Finish to go to the Virtual Device Manager





# Android will configure the Virtual Device





#### Your Virtual Devices

This window will open a generic emulated device. We won't see our app by opening an emulator

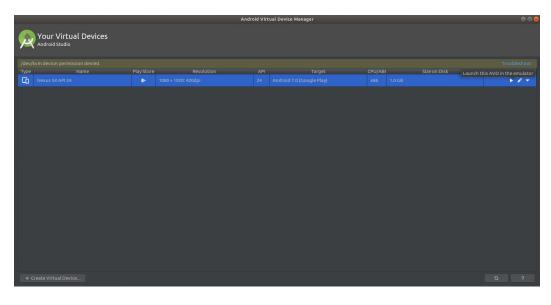
in this window.

If you receive an error asking to grant user access to dev/kvm then open a terminal and type:

sudo chown :\$USER /dev/kvm

Then enter:

sudo chmod g+rw /dev/kvm





#### Emulate The Quizzler App

To emulate our application close the AVD Manager. We will emulate a device from the primary Android Studio window that we've been working in.

Find and click the play button. It's toward the top right of the primary Android Studio Window

```
ample 🗀 thequizzler 🔘 MainActivity
                                                                                                         🚜 activity main.xml × 🛮 🚜 strings.xml × 🔎 MainActivity.java ×
                   ic void onClick(View v) {
Toast.makeText( context MainActivity.this;
```



#### Install Instant Run

The first time the play button is pressed a popup will ask if you'd like to install Instant Run. Select Install and Continue. This will open a SDK Installation Window.

```
<u> Elle Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window H</u>elp
🖶 The Quizzler 📭 app 🖿 src 🖿 main 🖿 java 🖿 com 🖿 example 📮 the quizzler 🧐 Main Activity

√ ■ app ▼ ▶ 4 前 □ の 前 ■ № □ № □ № □ □
 ▼ Mapp
        AndroidManifest.xml

    com.example.thequizzler

     ► Com.example.thequizzler (androidTest)

    com.example.thequizzler (test)

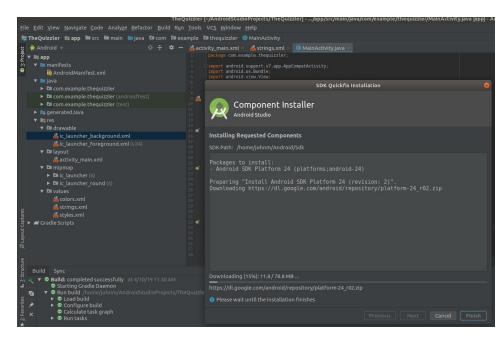
                                                                       private Button mTrueButton
private Button mFalseButto
     ▼ 🖿 drawable
           dic launcher background.xml
           activity main.xml
        ▶ 🖿 ic launcher (€
                                                                                                                  Instant Run
      ▼ D values
                                                                   Instant Run requires that the platform corresponding to your target device (Android 7.0 (Nougat)) is installed.
           # styles.xml
 ► M Gradle Scripts
```



### The SDK Quickfix Installation Popup

Click Next, wait for the component install to complete then click Finish. The virtual device will load

automatically.





# Play with your app!

The Quizzler will appear once the emulator finishes loading, allowing you to test the buttons and ensure the toasts are working properly.









#### Updating the Virtual Device

When you're done testing we do not need to close the emulator. Save time for future testing by leaving the virtual device open in the background.

Close the app by pressing the Backwards facing triangle button. For future tests we'll click the play button in Android Studio as we have done previously.

