**Emulators**

When you create Android apps you're building them on a computer, either a desktop or a laptop. But since the apps are meant to run on a phone or a tablet, you might not have those available at your fingertips to upload and test it out. So what do you do? The answer is to use an emulator. Emulators are part of Android Studio and allow you to build and deploy an app to a virtual device that is attached to your computer and use as an emulator to run the app as if it was installed on a physical device. There are emulators for multiple types of devices, and as you test your app you can use them to see how the app looks and feels on any of these devices.

With emulators, though, there are some trade-offs. For instance, a mobile device has a number of sensors that might not be on your desktop or laptop, so the emulator tries to give you an alternate way to fool the device with phoney information, or you can't test certain things. For instance, you might be testing an app that relies on a GPS sensor. The emulator can fake a location from a GPS sensor and even fake errors and other conditions to give you an opportunity to test your app under those conditions. However, you can't fake all real world situations, so there are some limitations, emulators can do a lot more than just run your app.

As you build your app, you'll work with emulators to test things out on various device types. You can also use emulators to take screenshots of the app to submit with your app to Google, to list and Google Play.





