

8 top mobile testing tools you should use

by Andres Olmos - Tuesday, March 21, 2017

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When you need to test an app on mobile devices it is always a good idea to use tools, so you can do a deeper test and ensure the best result. There are many tools that can help you do this. Whether you choose to do manual and/or automated testing, then you'll have different options. In this article I will present some of them based on what have been most useful in my day-to-day work.

Manual testing

Charles proxy

This proxy works in Windows and Mac, and it enables you to analyze and intercept the communication between the web service and the mobile device (Android and iOS).

With this tool you can make some changes in the way the server responds to different situations, and simulate specific responses. You can use breakpoints, and rewrite all the response among others. For example, if you want to simulate a server error like a 500 error, then this is an easy task and you can analyze how the app reacts.

This program has a free version, which you can use for 30 minutes. After that, you'll have to reboot the program to continue using it.

Genymotion (Android)

This is a fast Android emulator and really easy to use. It's the ideal tool to easily test apps for Android. It has a version for Windows and Mac.

It has a free version that is not as complete as the paid version, but it's good enough for use and obtains good results.

With Genymotion you have different options that help you with the testing (not all are available on the free version). For example you can rotate the phone and configure a proxy, among others.

Another aspect to take account is that it also works very well on AMD processors - this is not happening with the default Android emulator.

Android Studio Emulator

This is an emulator that is part of Android Studio, and it's fully integrated with it. You can create many devices with different configurations. It has several advantages compared to other emulators.

It has only one version, and this allows you to do all the kinds of testing that you need. It has a version for Windows and Mac. It's only compatible with Intel processors, and doesn't work well with others.

iOS Simulator

This tool is part of Xcode and it allows you to do some testing without a device. It gives a good idea on how the app is going to work in a simple way.

You have to take in account that this is not the same as in a real device because a simulator is not an emulator. The main difference with Android emulators is that the emulator imitates what a real device does, but a simulator pretends to be a real device.

Instruments (iOS)

This is also part of Xcode and with this tool you can conduct different types of tests such as memory leaks, activity monitor, and review how much memory the app is using.

This app is particularly beneficial because we have the possibility to evaluate how it works with a variety of different aspects.

Automated testing

Appium (iOS and Android)

Appium is a tool that allows you to develop automated testing using languages like Java. It uses WebDriver JSON wire protocol. It allows you to create tests for Android and iOS, and for native and hybrid mobile apps.

There are some positives aspects such as the possibility to do a test for Android and iOS at the same time, the different languages you can use, and there is a huge community working constantly to improve the tool.

But there are some things you need to know - for example the support for the last version of Xcode and iOS is not complete, and is still a work in progress.

XCUITest (iOS)

XCUITest is integrated with Xcode and has full compatibility with the latest versions. All the other frameworks to automate in iOS use this tool in some way.

The most important advantage of using this tool is the compatibility and Apple support. But there is no too much documentation about it, and the languages used are Objective C and Swift.

If you decide to use this tool you will have to integrate with Xcode, and create tests in the same environment as development.

Espresso (Android)

Espresso is integrated in Android Studio and it's really good to do automated testing quickly and easily. With this tool you won't have problems identifying elements or anything related to this.

It's a good alternative with Google's support and has been in the market for sometime, so it is an option you should consider.

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