Software Engineer in Test: Batch 8

**Manual vs. Automated Software Testing**

Their Strengths and When to Use Them



# What is Software Testing?

Software testing is the process of debugging software from the disastrous mistakes that could sink a whole project, to the smallest of oversights that might set your project head and shoulders above - or below -  the competition. Testing is integral to any software-related project, but how does it work; what methods are used to test the code?

## Testing methods

There are two main methodologies when it comes to testing: automated testing and manual testing. The names of these methods are pretty-self explanatory; manual testing is done manually and automated testing is done through automation. But what does this really mean? Manual testing is the practice of a developer or QA tester going through the program manually and trying to break it by performing specific and often niche tasks. This can take some time, and is often less precise and in the long run - costly. Automated testing, on the other hand, can be performed at lightning pace, with high precision and a far more attractive cost-to-tests-completed ratio.

So which one is better? Truthfully, neither is objectively better than the other; they simply have their own strengths and weaknesses. As stated above, manual testing is often less precise and has a slow pace, however, it is more cost-effective for specific tests that can result in quick fixes, a perk of its overall flexibility compared with automation, and is imperative for testing the user interface (UI) and user experience (UX) of a product. Meanwhile, automated testing, whilst costly to initiate, is very cost-effective over long periods of time given its precision, speed, and ability to be run on a variety of machines at once.

### What does it take to become a tester?

Software testers often have many of the same desired traits and qualities. Aside from their unparalleled attention to detail and ability to solve problems, anyone who wishes to become a software tester must work well as part of a team, which obviously includes having impeccable written and verbal communication skills. Having strong technical abilities is also a massive plus, as is the ability to stay on task throughout the day. The higher level of comfort when working with different tools and programming languages, the better, and when starting out, it wouldn’t hurt to already be familiar with various testing processes either to make yourself more marketable. Arguably one of the most important qualities a tester can have is the willingness to learn and grow in their position and as a part of their team.