

# What is Automation testing?

The software testing process involves two different types of testing - manual and automatic. There are obvious differences between these types of tests. Manual testing requires time and effort to make sure the software code does everything.

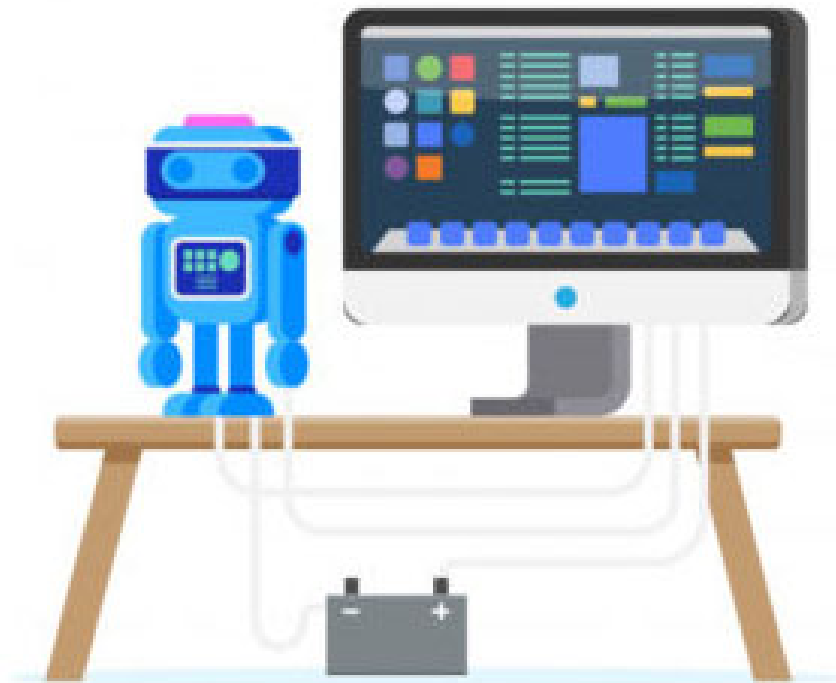
In addition, manual testers must record their findings. In this article, **Macworld** will readers learn Automation testing is and how it works.

## What is Automation testing?

Automation testing is the process of using tools, scripts, and software to execute test cases, by repeating predefined actions. Automation testing focuses on replacing manual human operations with systems or devices.

Because Automation testing is performed through an automation tool, it consumes less time in discovery tests and is more efficient in maintaining test scripts while increasing test coverage. overall.

Automation testing is best suited for large projects that require repeated testing of the same areas and those that have undergone the initial manual testing process.



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## Why choose Automation testing?

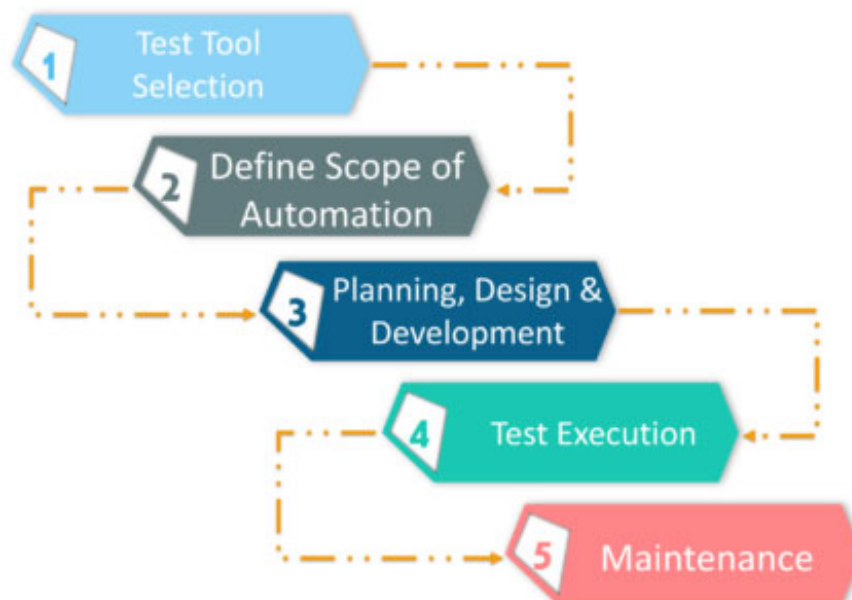
Automation testing has many benefits for application testing cycles. This allows you to create better applications with less effort. In addition, it is also less time consuming. Many companies still only run manual testing, because they now know how to properly integrate Automation testing in their application development workflows.

Some of the reasons why Automation testing is important include:

- **Test run 24/7** : You can start testing from anywhere in the world, anytime you want. You can even do it remotely, if you don't have a lot of devices or can't afford to buy them.
- **Less than Human** : You just need an engineer test automation scripts written to automate testing, instead of using many iterate tests manually boring.
- **The ability to re-use** : The script can be used again and you do not need a new script every time. Alternatively, you can redo the steps exactly like what happened before.
- **Error** : Automation helps you find a bug in the early stages of the software development process, reduce costs and working time needed to overcome these problems.
- **Confidence** : Automation testing reliable and faster when running tests repeating standard boring can not be ignored, but can cause problems when checking manually.

## How does automation testing work?

Success in test automation requires careful planning and design. The following steps are performed according to the automation process:



Automation testing requires careful planning and design

## 1. Selection of testing tools

Before applying Automation testing, you should define goals. Now, when you are sure what type of testing you are doing, you need to choose a software testing tool. You need to consider the following points when choosing a tool:

1. Is it easy to develop and maintain scripts for the tool?
2. Does it work on platforms like web, mobile phones, desktops, etc?
3. Does the tool have a test report function?
4. How many test types can this tool support?
5. How many languages ??does the tool support?

## 2. Define the scope of automation

Next, you need to define the scope of automation. So you need to decide which test cases will automate based on the following:

1. Situations with large amounts of data
2. Test cases have general functionality across applications
3. Technical feasibility
4. Reusability of business components
5. The complexity of test cases

## 3. Planning, design and development

After defining your goals and what types of tests to automate, you should decide what actions Automation testing will take. Planning, design and development includes:

- **Development of test cases** : The automatic test large, complex always very difficult to edit and debug. It is best to divide tests into several simple, logical, and smaller tests.

- **Development of the test** : The test ensures that the automated test case runs respectively without any manual intervention yet. Now, this can easily be done by creating a test suite that has multiple test cases, a library and command line tool that runs the test suite.

## 4. Execution of testing

Automation scripts are executed in this phase. Alternatively, the execution can be performed using the automation tool directly or through the test management tool that calls the automation tool.

## 5. Maintenance

Once the test cases are executed, the next step is to generate a report so that the actions taken during the test are recorded. As new functionality is added to software that you are experimenting with in consecutive cycles, automation scripts need to be added, reviewed, and maintained for each release cycle. Therefore, maintenance becomes necessary to improve the efficiency of automation.

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