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GROWTH ACCELERATION PARTNERS

QA AUTOMATION IS AS MUCH ABOUT PROJECT MANAGEMENT AS RUNNING SCRIPTS

Now is the Right Time to Build Automation into Your QA

QA AUTOMATION

97% of software testing professionals are using some form of automation, according to a recent study. But how do you best employ that? It is not as simple as adding and testing scripts and thinking the job is then done.

When it comes to quality assurance (QA), manual and automated QA both have their strengths and weaknesses. The rigors of manual testing mean that it can be a time-consuming process; and increasingly, it is time many organizations cannot afford.

Yet automated can be no day at the beach either — and it soon becomes evident why companies work with trusted partners on QA automation rather than building their own teams. With the different processes a specialized QA team needs to master, from front- and back-end, to stress testing and endurance testing — and the sheer breadth of tools and frameworks available, from Selenium and Appium, to Cucumber and Cypress — best practice can be difficult to attain.

The landscape of software development and delivery is changing. Releasing multiple times a day is now the norm; the most forward-thinking organizations, such as Meta, are moving from this to a quasi-continuous release cycle. Increasingly, organizations are utilizing a microservice architecture. If your estate comprises various microservices, a build-and-run team will consist of no more than 10 people, owning the process from development to operations, and all releasing every day. Scalability and time-to-market goes up — but so does complexity.

The benefits of utilizing QA automation and hiring a specific QA team for building out quicker release cycles are evident: save time and money by finding issues as early and quickly as possible, rather than finding issues in production. You're not having to wait if you are doing two-week sprints with something broken in production. What's more, you're helping your developers if you're asking them to fix a problem with code that is still fresh in their minds.

Yet in real-world conditions, there are plenty of pitfalls to avoid. If your team is not following the correct practice, it can cause issues in the future — and it therefore makes sense to partner with a company such as GAP with deep experience across technical toolsets and frameworks as well as project management.

Take the example of one client who was initially using a page object pattern in Selenium. This is a well-known and popular design pattern in test automation, as it reduces the amount of duplicated code. If the UI changes for a particular page, then only the code within the page object changes and the tests remain the same. In object-oriented programming — Selenium's official languages are C#, Java, JavaScript, Kotlin, Python and Ruby, which are all object-oriented — classes are used as a data structure for creating objects. Yet the client was not following the correct implementation. The resultant classes were huge and unwieldy, and it took a series of sprints to fix the issue.

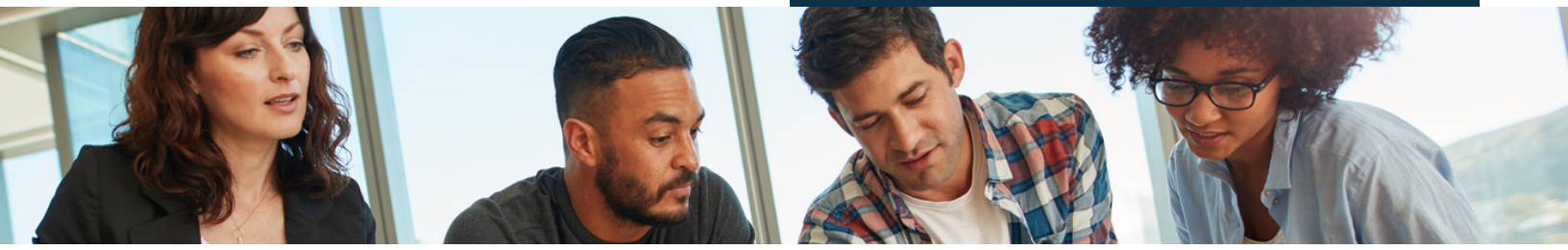
In this example, the client was ultimately lacking structure and oversight in the project. An approach that GAP often takes to remedy this is to start with proof of concepts (POCs), selecting a set of tools and test cases that should provide value at one level of complexity, and then adapt it for the project. Being able to correct course and refine strategies along the way is another important factor in a good QA automation team, alongside having the technical expertise to make the changes happen.When automation works well, the benefits can be stark. One successful project saw a client have 1,500 tests, all run manually. This process took around two weeks with five QA manual resources. GAP implemented automation in all of these tests, and implemented parallel execution in the cloud, reducing the execution time to five hours. That's a 94% improvement in process time!

Tests can not only be run now with each new build — gaining time and resources by freeing up the manual testers in the process — but in a significantly smarter and more granular fashion. Tools such as SauceLabs and BrowserStack focus on quantity and quality, being able to test on thousands of device, browser, and OS configurations.

With so many tools on the market, the importance of being informed when making a purchasing or hiring decision cannot be overstated. Yet the technical landscape continues to evolve. Just look at the number of vendors who flavor their test automation tools with AI and promise the world as an example. In such circumstances, it may be better to trust an experienced partner to get things right.

In a recent interview, one of the biggest pitfalls a GAP engineer had seen was when one company began a partnership with a vendor and implemented it because it seemed easy — but soon found the tool was not stable or flexible enough. Once implementation hits, mistakes become very expensive. Needless to say, that company switched and began working with GAP.

With a partner like GAP by your side, there is not just a wealth of knowledge on different tools, but knowledge of various situations to understand what is best for your organization and why.



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