The Key Role of Enterprise Test Automation in Meeting Business Objectives

The operations of today's business enterprises are underpinned by the successful functioning of their online touchpoints in the form of websites and applications. Keeping these touchpoints working seamlessly and maintaining the required quality standards requires continuous quality testing along the lines of Agile-DevOps using test automation. Most enterprises are of the view that such automation would entail disruptions and high overhead costs. However, with proper planning and by implementing the right strategy, enterprise test automation can be achieved with minimum disruption. Before going any further, let us first understand the terminology.

What is enterprise test automation?

Enterprise test automation deals with the testing processes of websites and/or apps at the enterprise level. The websites or apps can be in the form of BI tools, ERP solutions, payment processing software, and others. Enterprise process automation is of utmost importance as all enterprise-level software is mission-critical and executes a host of activities. They may offer customer support, products or services, facilitatee stakeholders to take critical decisions, speed up processes, and many others.

In the digital ecosystem, enterprise software helps businesses to run their operations smoothly and profitably. To achieve the same consistently, the software needs to be tested comprehensively before deployment. And since such massive software platforms are complex, have integration with numerous third-party software, and operate across various operating systems and devices, software QA automation becomes critical. With the right frameworks and tools, enterprise intelligent automation can help both developers and testers evaluate the performance of enterprise software in terms of its ability to meet business goals.

Areas to automate in the automated QA testing process

The areas to be covered for automation in any enterprise-level software are as follows:

- Aspects of a website or app that are business or mission-critical, such as the essential features and functionalities.

- Modules that are complex for manual testing and prone to human error.

- Features are tested repeatedly to achieve a high level of software performance.

- Integration tests to validate the performance of individual software components working

- End-to-end testing verifying transactions and user journeys across components at the API or UI level.

Prior to executing enterprise process automation, it is important to know and measure the tangible benefits to be obtained. This requires the setting of parameters and key target areas to cover, as mentioned below:

- Include every aspect of the enterprise software to achieve enhanced test coverage.

- The right test framework to test the stability and performance of the software quickly and repeatedly.

- Develop the right test scripts that can be reused for other projects and make the process cost-effective.

Best practices for test automation by software test automation services

To ensure the enterprise-level software aligns with the business objectives and adds value, a comprehensive test automation strategy incorporating best practices should be undertaken.

Align test automation strategy with business objectives

[Test automation](#) may not be applicable to every process or project and depends on the project's objectives and the outcomes to be achieved. For example, some projects may require rigorous tests to validate their functionality and performance, while others may not need the same. Test automation helps assess the usability, responsiveness, and stability of an enterprise-level application, and, therefore, it is important to know the outcomes to be achieved.

Plan testing in advance in the development lifecycle

As opposed to the waterfall method, software QA automation testing should be planned in advance in the development process courtesy Agile and DevOps. With this approach, there is increased collaboration between the development and QA teams wherein every code build is tested to identify glitches (if needed.)

Select the right tool

It is important to select a tool that aligns with the business objectives and can be used conveniently by the team offering [QA automation services](#). For example, if a tool tests the compatibility of the application across devices and browsers, it should be compatible with the project as well. Also, to analyze the performance of an eCommerce or financial application, the test automation tool should be able to conduct load or stress testing.

Manage test assets

Any test automation process generates crucial assets, which should be properly documented, centralized, and made available for future projects. The entire exercise can make the testing process credible, effective, and cost-optimized.

Conclusion

Digital transformation has enabled business enterprises to achieve a host of outcomes, namely, enhancing the quality of products/services, increasing productivity and efficiency, reducing costs, and streamlining customer support, among others. By planning enterprise intelligent automation, the outcomes can be achieved and the competitiveness of the business can be upheld.

Resource

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