

PROBLEMS OF COMPLEX EVALUATION OF AUTOMATED TESTING

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Automated testing differs from manual testing in that all tests do not need to be conducted manually [1]. Automated testing tools can do it all automatically.

However, there are many human and technical factors that can affect web applications and their properties, such as speed, scalability, and visibility. Therefore, everything needs to be tested for "fitness for purpose."

There are two main ways to do this: manually or by automating the process. Manual testing is usually resource-intensive in terms of both cost and time. Automation, on the other hand, helps quickly reduce errors caused by human factors. It can also save money and time by considering different scenarios, circumstances, and technical configurations such as browsers, screen sizes, devices, and more.

Software verification (or testing) is an important skill for evaluating the quality of a software product [2].

Verification is the process of analyzing a software object to identify differences between the existing and required states (i.e., errors) and evaluating the features of the software object. Software testing is an activity that should be carried out throughout the entire development process [3].

The main goals of testing can be to demonstrate to developers and customers that the program meets requirements and to identify situations where the program's behavior is incorrect, undesirable, or does not conform to the specification. There are two key approaches to automating testing: code-level testing and user interface testing.

Among the problems of automated testing, its laboriousness is the primary concern. Although it avoids some routine operations and increases test execution speed, updating tests may require enormous resources. The second major problem of automated testing is maintaining tests in an up-to-date state.

Updating tests may be necessary in the event of changes to functionality or input data. This can be a time-consuming and resource-intensive task.

References:

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