DEVELOPMENT OF TEST MANAGEMENT SYSTEM SOFTWARE PRODUCTS

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In modern conditions, when the IT services market makes high demands on the quality of developed software products, it is necessary to effectively manage the process of not only development but also testing throughout the entire life cycle in order to ensure the quality of the software product [1-2]. Special tools are used to automate test management and reduce manual labor. These tools are Test Management Systems that streamline the testing process and facilitate the work and interaction of project teams in a single space. The Test Management System includes everything you need to manage the testing process; it can save a QA specialist from problems with installing individual applications required for the testing process.

In the IT services market, there are many tools for managing the testing of developed software products [3], these tools differ by approaches used for testing and, therefore, have different sets of functions. Most of them are used to plan testing actions, launch or collect execution data from automated tests, monitor marks in checklists, provide the ability to obtain the necessary information about testing stages, configure and upload reports with data on the quality of the tested product, etc. The choice of Test Management Systems is driven by comparison of features, prices and product reviews.

After the analysis of the existing systems, it was concluded that none of them provide the implementation of the full range of functions that are necessary to manage the testing of software products, therefore, it becomes necessary to create a new Test Management System "TestProg", which will implement additional functions and meet the needs of project teams. These needs include the following capabilities: saving requirements for a software product, collecting metrics for testing a software product and automated test cases, integration with Project Management Systems, as well as GitHub, Bitbucket and Jenkins, Bamboo services, creating ranks, building a traceability matrix, etc. When administering test cases in "TestProg", users will be able to access various dashboards to instantly access data, making the testing process efficient and accurate.

The system "TestProg" will provide capabilities through which project teams can optimize the testing process and provide quick access to data analysis, as well as facilitate better communication between multiple project teams.

References:
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