Abstract

In the context of software development, the quality control process is a critical element that aims to monitor and verify product quality. Weak quality control processes are often the main cause of software project failure. Software testing is the key to identifying defects, but designing an effective test suite requires a great deal of effort that can affect costs, effectiveness, maintenance time, and development schedules. The Directorate of Information Technology Center (PUTI) is one of the IT support units within Telkom University, currently facing similar challenges in maintaining the BaSO application (creating official letters online). This application requires further testing to ensure that each function is running well in various browser and device environments. In this case, the reuse and pattern approach is proposed as a solution, and based on this approach, a test case catalog is created. To assess the influence and effectiveness of the designed system, an experimental study was conducted on the PUTI quality assurance team to test the BaSO application. The main results of this study indicate that the use of this pattern-based test case catalog can improve the implementation of reuse, as well as increase variation in the testing process.