

ABSTRACT

Software development can be said to be ready for use if it is successful through the testing phase. In the era of software development that uses traditional methods, testing is carried out when the application is complete by trying the features one by one. The use of traditional development methods has an impact on the occurrence of bugs or code breaks at the production stage. This study aims to develop the RESTFUL API by applying one of the agile development methods, namely test driven development which is then evaluated in several stages. The testing phase carried out by the researcher was by using unit tests and integration tests. The evaluation uses the ISO 9126 software assessment standard and user acceptance test. The application of the method carried out by the researcher is by making the entire test case first, followed by writing production code and ending with refactoring. Based on the application of this method, the researchers obtained fairly good test and evaluation results. This is evidenced by the acquisition of points in the user acceptance test of 69 with a percentage score of 81.4%. Development using the TDD method has a very good impact because it can reduce the occurrence of bugs or code breaks during production and implementation of TDD also helps fellow developers in developing applications because code can be easily read because in TDD development there are refactor stages that aim to tidy up code that written.

Keywords: *software;API;TDD*