

ABSTRACT

Towards World Class University, universities in Indonesia make improvements to the quality of researching and teaching. Research activities can encourage people to produce scientific papers that can be published, where a good publication of scientific papers can be used either as a source of learning or teaching in a college and eventually be used to explore the potential of students to produce a creativity. But according to SCImago Journal and Country Rank, the rate of publication of scientific papers in the form of journals in Indonesia is still low compared to other countries like Thailand, Malaysia, and Singapore. In fact, according to data in EBSCOhost students in Indonesia have a high interest to use the journal as a reference.

To solve that problem, institution need E-Reference application that can assist the management of e-journal. E-Reference built with cloud solution and multi-tier architecture, in which the cloud system would provide many advantages of ease of access, saving (without the initial investment), and made more operational and easy management. Multi-tier architecture used in the application of e-Reference is a three-tier consisting of a presentation tier, business logic tier, and database tier. In the development of e-Reference researchers using iterative and incremental development system that enables to divide the process into stages or phases, namely inception iteration, elaboration phase, construction phase, and the phase transition can be improved continuously at every stage to ensure software quality and built in according the requirements.

The result of this research is the E-Reference applications which features management group, management group post, management edition and criteria of the journal, submit journal, review of journal, publication and monitoring of journal.

Keywords : informatic technology, e-Reference, e-journal, iterative and incremental, Java Enterprise Edition, cloud application, distributed architecture