ABSTRACT

ALFA NUGRAHA PRADANA. Development of Programming Learning Management System for Scheme, Java, PHP, and Perl Language. Supervised by JULIO ADISANTOSO.

In conventional manner, learning process is done in the form of discussion or direct delivery of learning materials in a class or lecture. Programming is not easily applied to a conventional learning process. In this condition, LMS has an important role to improve the process of learning for programming. TOKI LC has been developed to identify the programming in Pascal, C, and C++ languages. However, this system has not been equipped with a programming language that is often used by student majoring in computer science or informatics. Therefore, this research aims to analyze and develop four other programming languages into learning management systems in the field of programming. LMS for programming was analyzed according to the concepts of e-learning, storyboard, and grading model. The system was developed with the prototype model on method of development grader, and then tested. Analysis shows that the system is adopting asynchronous learning with several main functional components, namely portal, baseline LMS features, and LCMS. Development of grader generates the Java programming language as a language with run time performance and memory space usage greater than the other programming languages, namely Pascal, C, C++, Scheme, PHP, and Perl.

Keywords: learning management system, programming, grader