Perancangan Antarmuka Aplikasi Pembelajaran Pemodelan UML Sequence Diagram menggunakan Metode User Centered Design

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Abstract

Unified Modeling Language (UML) is a language or notation for modeling that is widely used in software development. In UML, there are several artifacts that must be studied, one of which is Sequence Diagrams. Sequence diagrams are artifacts created at the design stage, and are used by developers to visualize the flow of messages between objects in an object-oriented computer program. Computer science students are required to be able to understand the artifacts in UML well. One of the UML artifacts that is not easy to learn is sequence diagrams because sequence diagrams have many notations, and these notations must be used appropriately in modeling software. Based on the results of a survey conducted on undergraduate Informatics students at Telkom University, it was found that students still lacked understanding of the notation in sequence diagrams, such as not knowing what the notation was used for and not understanding how to determine the correct notation to describe sequence diagrams. One of the reasons why students cannot understand sequence diagrams well is because there are still few learning media that provide complete learning content about sequence diagrams. Currently, there are several applications that can be used to describe sequence diagrams but there is no explanation of the notation used, apart from that there are also sequence diagram learning applications that provide learning content but are still in English. Based on these problems, in this research a sequence diagram learning application interface has been created that is integrated and in accordance with user needs. This research uses the User Centered Design (UCD) method. It is hoped that the design of the sequence diagram learning application interface can make it easier for users to use the sequence diagram learning application. To evaluate the level of usability of the interface design created, this research uses the System Usability Scale (SUS) measuring tool. Based on evaluation using SUS, an average score of 87.75 was obtained. Based on this score, the sequence diagram learning application has acceptability ranges ACCEPTABLE, adjective ratings BEST IMAGINABLE with a grade scale of B.

Keywords: sequence diagram, user centered design, system usability scale