ABSTRACT

IMPLEMENTATION OF FINITE STATE AUTOMATA (FSA) IN THE DEVELOPMENT OF A VIDEO EDITING COURSE WEBSITE USING RAPID APPLICATION DEVELOPMENT (RAD) (Case Study: LUKIFAYS STORE)

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Lukifays Store, as a video editing course provider, faces the challenge of classifying course participants based on initial ability. This can affect the effectiveness of learning and user experience. This research aims to implement Finite State Automata (FSA) in the development of a video editing course website at Lukifays Store. The system is designed to classify course participants based on ability level, namely beginner, intermediate, and expert. The Rapid Application Development (RAD) method is used to develop an automated payment system integrated with a payment gateway. The results showed that the implementation of FSA successfully classified participants into three ability levels automatically and accurately. Website functionality testing using black box testing showed a system success rate of 96.2%. This research shows that FSA is effective for the classification of participants' ability levels, while RAD supports efficiency in system development, especially in the integration of payment gateway features.

Keywords: Fnite State Automata, Black Box Testing, Rapid Application Development, Website.