

## ***ABSTRACT***

*Structured Query Language (SQL) is the standard language for managing and manipulating relational databases, and it is a crucial skill in today's digital era. However, an initial survey revealed that 92.5% of respondents experienced difficulties with SQL, primarily due to the complexity of syntax (47.5%) and a lack of understanding and interest (32.5%). This situation creates a gap between the industry's need for skilled SQL professionals and individuals' ability to master it. This research aims to develop and evaluate the effectiveness of a gamified SQL learning application using the Waterfall method as a solution to these problems. The development methodology includes Waterfall stages: requirements planning, design, implementation, testing, and deployment. The application is designed with interactive features such as tutorials, quizzes, and progress tracking systems. Functional testing using black box testing methods confirms that all features meet the specified requirements. User acceptance is evaluated using a questionnaire adapted from the Technology Acceptance Model (TAM), focusing on the variables Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). Analysis results show high acceptance levels, with 85.24% of respondents finding the application very useful (PU) and 84.76% finding it easy to use (PEOU). In conclusion, the gamified SQL learning application developed has proven effective in facilitating SQL learning, with significant user acceptance and satisfaction, providing an important contribution to bridging the SQL skills gap.*

***Keywords: SQL, Gamification, Waterfall method, Black Box Testing, Technology Acceptance Testing***