

## ABSTRACT

English language ability is an essential skill for every individual. English as an international language has become the main communication bridge in the world, covering education, economics, and technology. The needs survey shows that the majority of user candidates have low self-confidence, difficulty in constructing sentences and finding interlocutors, and building a supportive environment is very important in improving English language skills. Chatbot, as part of Artificial Intelligence (AI) technology, is expected to help overcome these challenges. Chatbots can be used as a potential learning medium to improve English speaking skills. The purpose of this research is to produce a back-end Elarise application with chatbot features integrated with OpenAI API. Elarise application software development method is the ICONIX Process, which consists of requirements, analysis, design, and implementation. The results of this research are the Back-end of the Elarise application integrated with the OpenAI API, which has the main features of being able to chat with a chatbot, and the chatbot will provide feedback on the messages sent in real-time. Based on a series of black-box tests with 52 test items, the Elarise application back-end was declared to fulfill the criteria and answered the problem formulation based on the application's functional and non-functional requirements.

Keywords : English learning, back-end development, ICONIX Process, Artificial Intelligent, OpenAI API