Abstract

Dkampus is a capstone project developed as an online food ordering platform focused on the Telkom University campus community. While Dkampus provides convenience for students to order food from various local Micro Enterprises, it faces challenges in providing adequate customer service due to limited human resources.This research aims to develop and implement a virtual assistant chatbot feature on the Dkampus platform using Natural Language Processing (NLP) technology with the Artificial Intelligence Markup Language (AIML) algorithm. This feature is expected to improve the quality of Dkampus' customer service by providing fast and accurate responses to user inquiries or complaints. The chatbot is a field of Artificial Intelligence (AI) with the application of Natural Language Processing (NLP). It is built using Artificial Intelligence Markup Language (AIML), an XML-based markup language used to structure conversation logic in chatbots. AIML also serves as the knowledge base for the chatbot.The research results show that the developed chatbot is able to understand and respond to user questions with an accuracy rate of 86% from 50 previously unseen test data. 43 questions were answered correctly according to the defined patterns, while 7 questions were answered incorrectly, defaulting to template responses.

Keywords: Natural Language Processing, Customer Service, Artificial Intelligence, Chatbot, Virtual Asisstance. Xtensible Markup Language (XML), Artificial Intelligence Markup Language (AIML)