ABSTRACT

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Implementation of Chatbot FAQ in Direktorat Jenderal Anggaran's Performance Monitoring and Evaluation Application Using Rasa Open Source Framework.

Keywords: Chatbot, FAQ, Natural Language Processing, Rasa Open Source, Application Programming Interface. (xvii + 134 + Attachment)

Direktorat Jenderal Anggaran (DJA) is an organizational unit at the Ministry of Finance with the task of providing a performance-related information system. The recent dynamics of policy changes have led to changes in the information system developed by DJA. Even though DJA has socialized the existing business processes and systems, many users still ask questions through the DJA customer service channel which can only respond during business hours. This research will propose a solution for optimizing these services by creating a chatbot based on Natural Language Processing using Rasa Open Source Framework which will be installed on one of the DJA's core systems, namely the Performance Monitoring and Evaluation Application. The chatbot will answer user questions related to the application in real time. This study uses Frequently Asked Questions (FAQ) data, the Ministry of Finance's knowledge base, Focus Group Discussions (FGD) and Performance Monitoring and Evaluation Application data taken via the API (Application Programming Interface). The results of this study are Chatbot FAQs embedded in the performance monitoring and evaluation application. The test results for the prediction of intent resulted in an accuracy value of 0.986 then for the prediction of a response an accuracy value of 0.980 was produced. This shows that the chatbot is very good at identifying the intent and giving the right response to the user.

Bibliography (2018 - 2023)