

Site-Bot

A chatbot that fetches events details from a website.

HADI RAFAD P V
Roll No: 22

Introduction

- A chatbot that fetches events details from a website.
- It is a site-bot build using rasa-nlu.
- Chatbots are intelligent programs that can establish communication with human beings, usually with the purpose of helping them achieve a specific goal.
- In this project chatbot fetches events details from a website as per users questions.

Problem Statement

- When large events like university techfests, Conferences...etc occurs, it is difficult for a person to get the details about a particular event in which they are interested from the event website.
- It may consume time, effort and may the person get distracted by both relevant and irrelevant information provided in the website.
- So in order to make their task more convenient and user-friendly, AI chatbot can be introduced to answer the queries of the users by fetching the details given in the site.

Objectives

- Create a web application that is a chatbot along with a website.
- AI part using Rasa-nlu and bot-application and extraction of data from site using flask.
- Bots are trained using data from interactions among human beings so that they can learn speech patterns and answer questions.
- In this project chatbot fetches events details from a website as per users questions.
- It uses Rasa framework and nlu (a library for natural language understanding).

Methodology

There are two parts in this project

1. AI-Engine

The AI Engine part takes care of Natural language understanding. It is built using a open source NLU agent called rasa-nlu

2. Bot application

The bot application is a **flask** application that has a Client(Simple UI chat interface), a backend that fetches event details from a website.

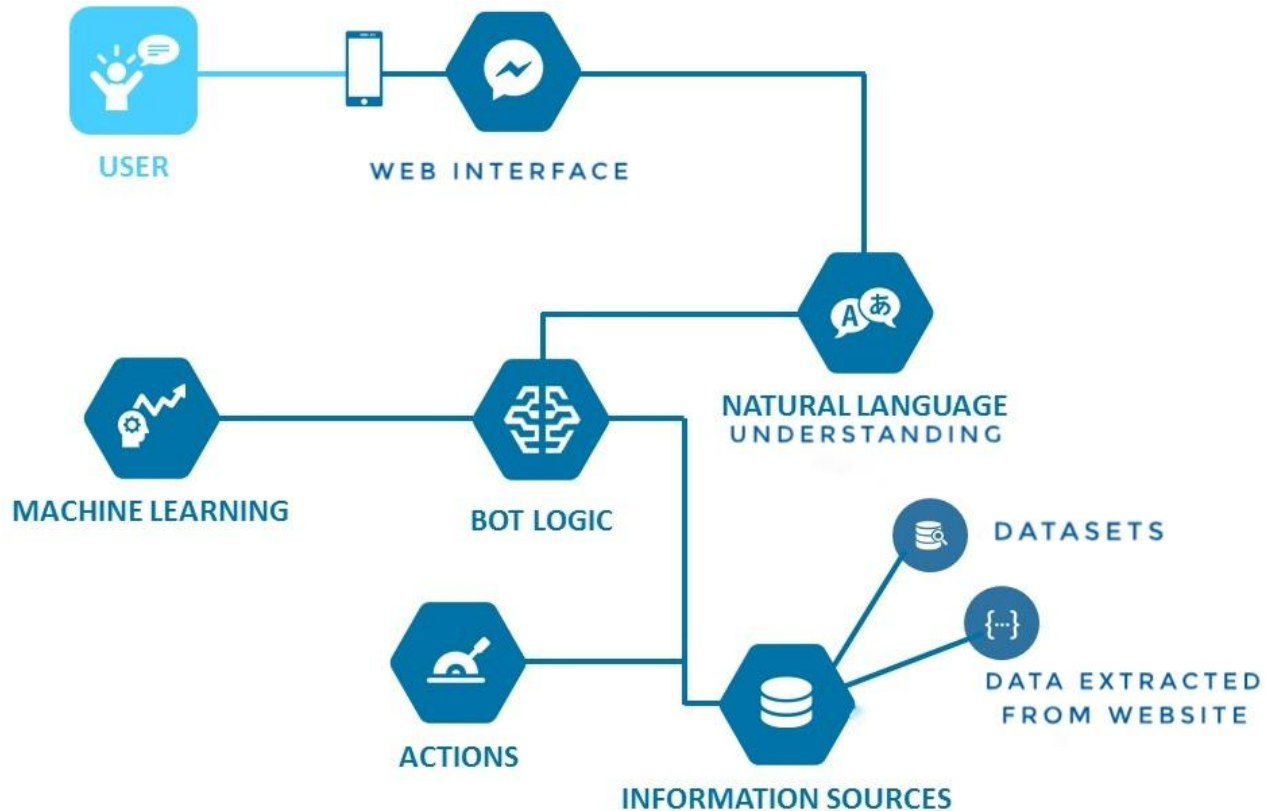
Benefits of Rasa

- It lets you **focus on improving the “Chatbot” part** of your project by providing readymade code for other background tasks like deploying, creating servers, etc.
- The default set up of Rasa **works really well right out of the box** for intent extraction and dialogue management, even with lesser data
- Rasa stack is **open-source**, which means we know exactly what is happening under the hood and can **customize** things as much as we want

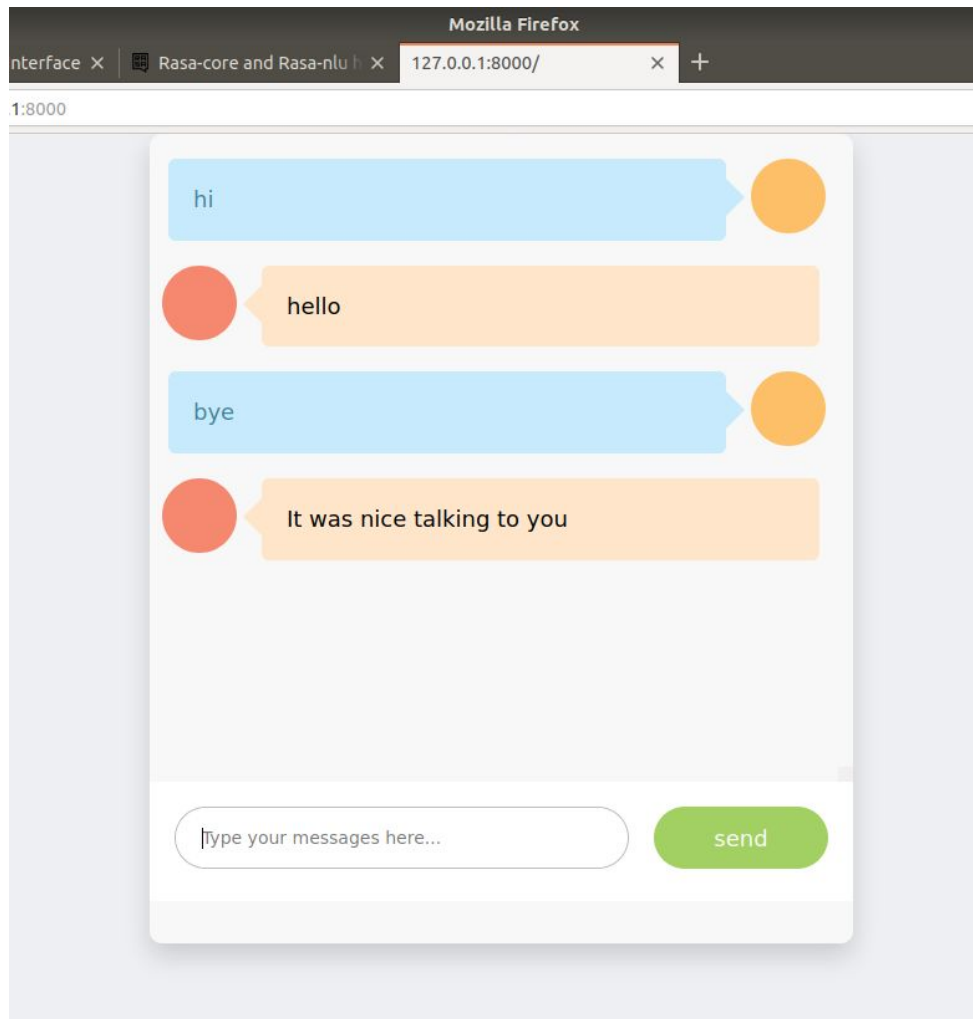
Literature Review

1. **Med What:** This chatbot aims to make medical diagnoses faster, easier, and more transparent for both patients and physicians. MedWhat is powered by a sophisticated machine learning system that offers increasingly accurate responses to user questions based on behaviours that it “learns” by interacting with human beings.
2. **Slush:** Slush, is known for holding entrepreneurial events across the globe. The company leveraged chatbot and experienced positive results. The **Jenny chatbot** by GetJenny on Slush’s website successfully handled 64% of all customer support requests for the Slush customer support team, which is a quite significant load.

Overall Design



UI



Progress of work

- The development is in Linux platform.
- The requirements like python, rasa-nlu, flask, numpy... etc installed in the system.
- Developed User interface for the chatbot.
- Somewhat code for extracting the data from website has done.
- Idea about train data set has made.

Timeline

- Develop a demo web page that contains event details or choose a website for the purpose.
- Do the complete code for extraction of data.
- Generate a good dataset.
- Do the training and generate model for running the application.

Future Scope

- The site-bot can be implemented in the websites of events and tech fests held at campuses.
- Voice inputs can also accepted in the future.
- Though Alexa is a huge leap forward from ELIZA, chatbots have yet to meet their full potential.
- Linguistic and conversational ability must improve.

Conclusion

- Chatbots or smart assistants with artificial intelligence are dramatically changing businesses.
- Chatbots are applications that are still in the initial level of development.
- Site-bot is used along with a website of conference or any event.
- The user can chat with the bot available in the website to easily get the schedule and timings of each events.

References

- “Excitement and Concerns about Machine Learning-Based Chatbots and Talkbots:A Survey”

Pablo Rivas, Kerstin Holzmayer, Cristian Hernandez, and Charles Grippaldi

- <https://towardsdatascience.com/a-chatbot-from-future-building-an-end-to-end-conversational-assistant-with-rasa-ai-51a1c93dabf2>

- “Chatbot Using A Knowledge in Database Human-to-Machine Conversation Modeling” Proc. of IEEE 7th International Conference on Intelligent Systems Modelling and Simulation.

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Thank you