Mingobot

A Chatbot for Moringa's School Data Science Course

Part of Capstone project for Group 6

Group 6 Capstone Team

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Overview:

Communications as its currently handled

- Office visitation

- Call centers

- Websites

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Chatbots: The next leap in business Communication

- A platform that entails a combination of website and call centre.
- Computer programs designed to simulate human conversation through text or voice interactions
- Provide instant, automated responses to user inquiries
- Streamline customer support, provide information, and enhance user experiences.

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Problem Statement

Moringa School's website offers extensive course information. However, prospective students struggle to find specific answers, resulting in repetitive email inquiries.

Our solution promises to provide an interactive platform using a Machine Learning chatbot, to enable ease of access to the required information.

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Objectives

- To develop a chatbot that answers any data science related questions for prospective student wishing to join Moringa School.

- To provide good customer service experience where student can get information related to data science course in general and achieve 80% accuracy in the bot

- Establish a feedback mechanism that allows users to provide feedback on the chatbot's performance.

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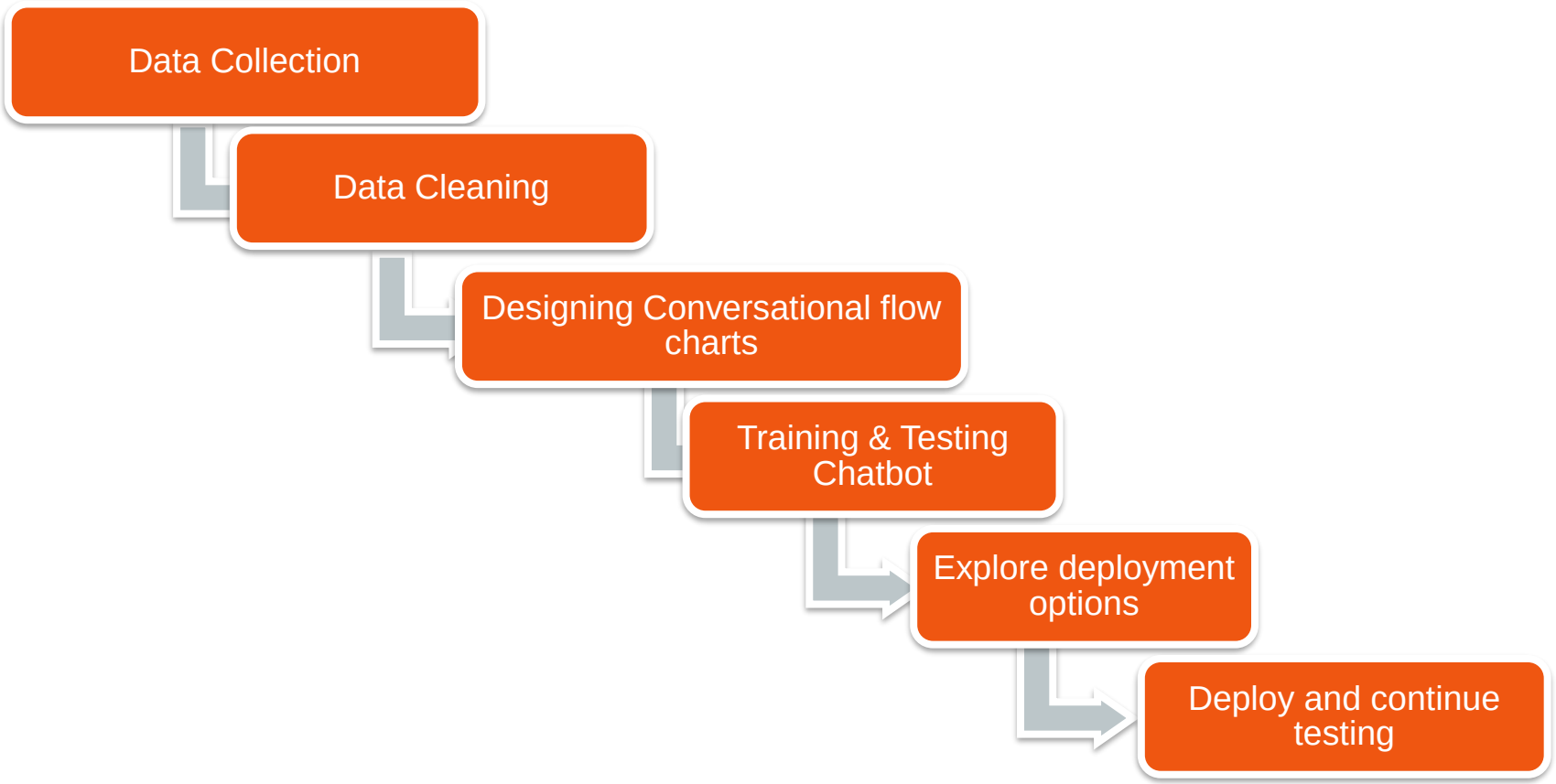
Data Understanding



Different Chatbot platforms

Dialogflow

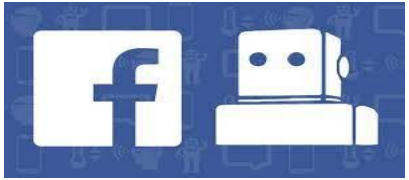
- Easy intergration with Google
- Supports multiple languages
- Restricted in handling complex conversation

- Seamless intergration with Azure
- Supports multipl channels
- Requires familiarity with Microsoft Ecosystem

amazon LEX

- Seamless intergration with AWS
- Strong NLU capabilities
- Cost drasticaly increase with usage

- Powerfull NLU Capabilities
- Easy Intergration with IBM Cloud & Watson
- Expensive especially for large scale applications

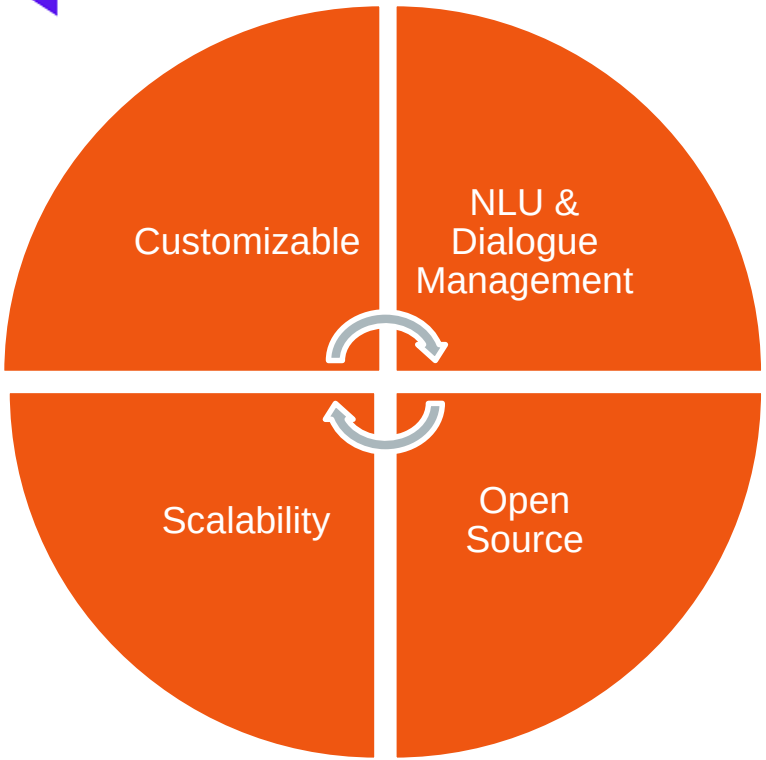


- Wit AI: Free and easy to use
- Intergration with Facebook Messenger
- Limited in handling complex dialogue

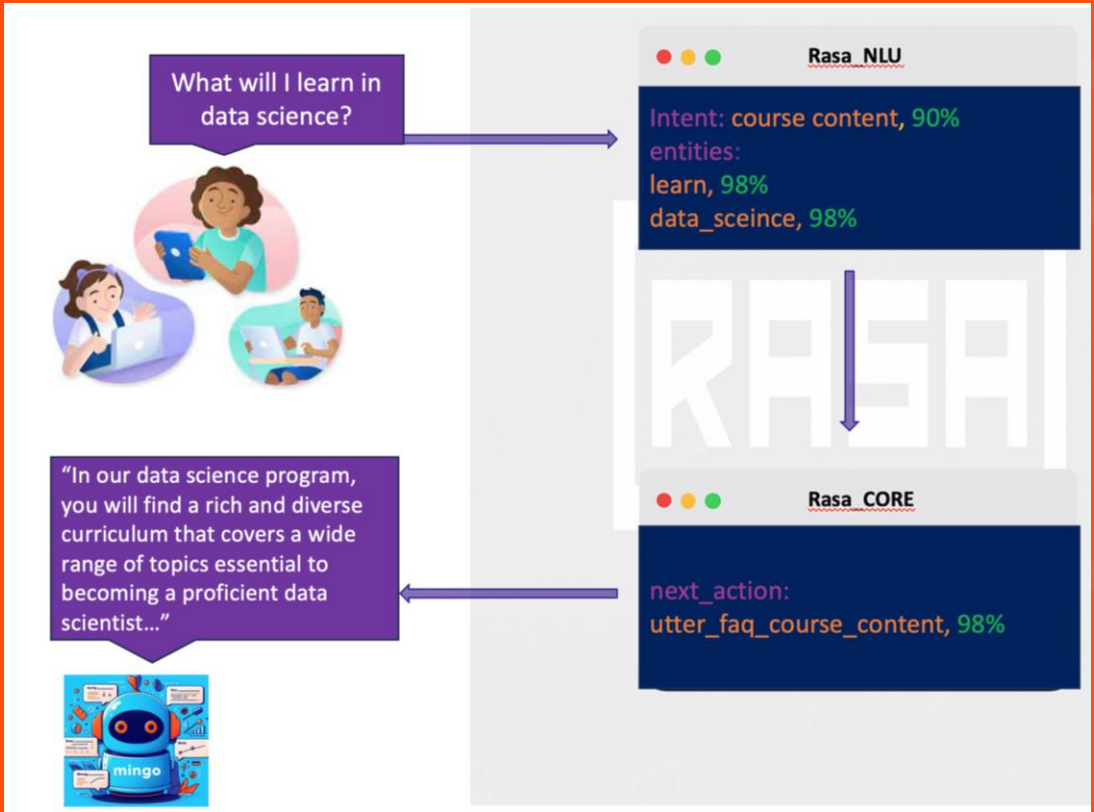
RASA

- Open source allows full control
- No dependancy on 3rd party services
- Steep technical learning curve

Why RASA ?


Customizable
NLU &
Dialogue
Management
Scalability
Open
Source

Mingobot flowchart



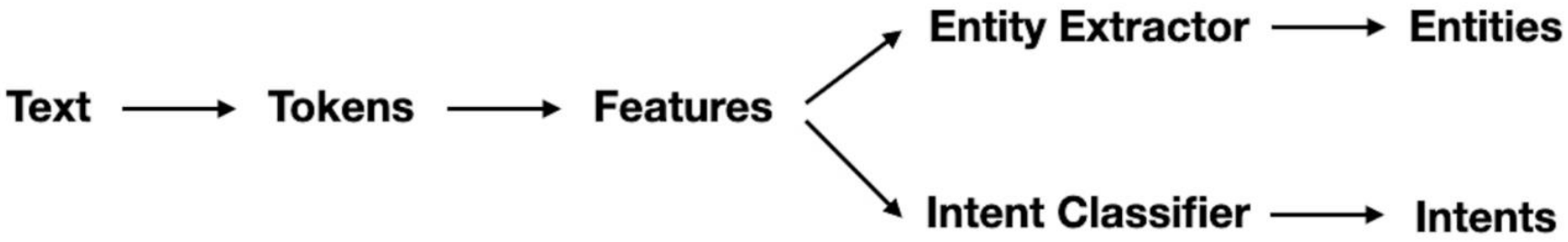
Let’s get Techie!!

Notebook Presentation

Deployment

Demonstration

How Rasa Works



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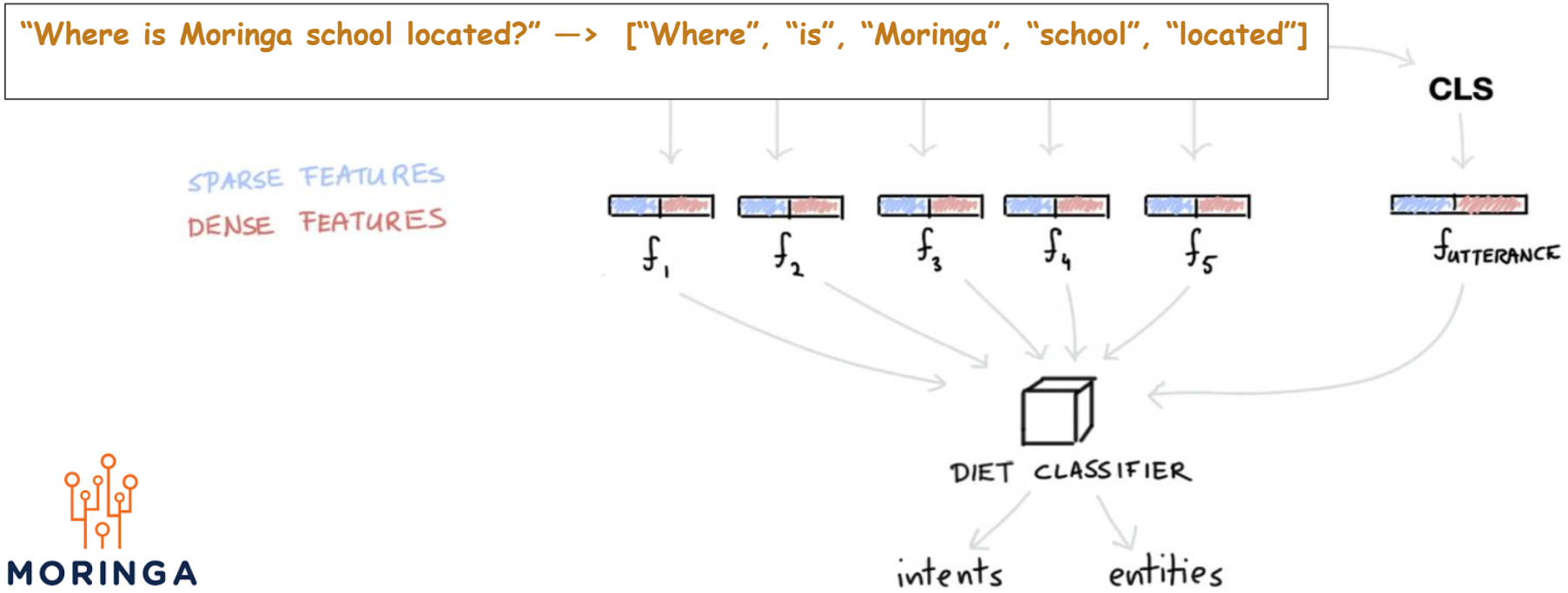
Cont...

"Where is Moringa school located?" —> ["Where", "is", "Moringa", "school", "located"]



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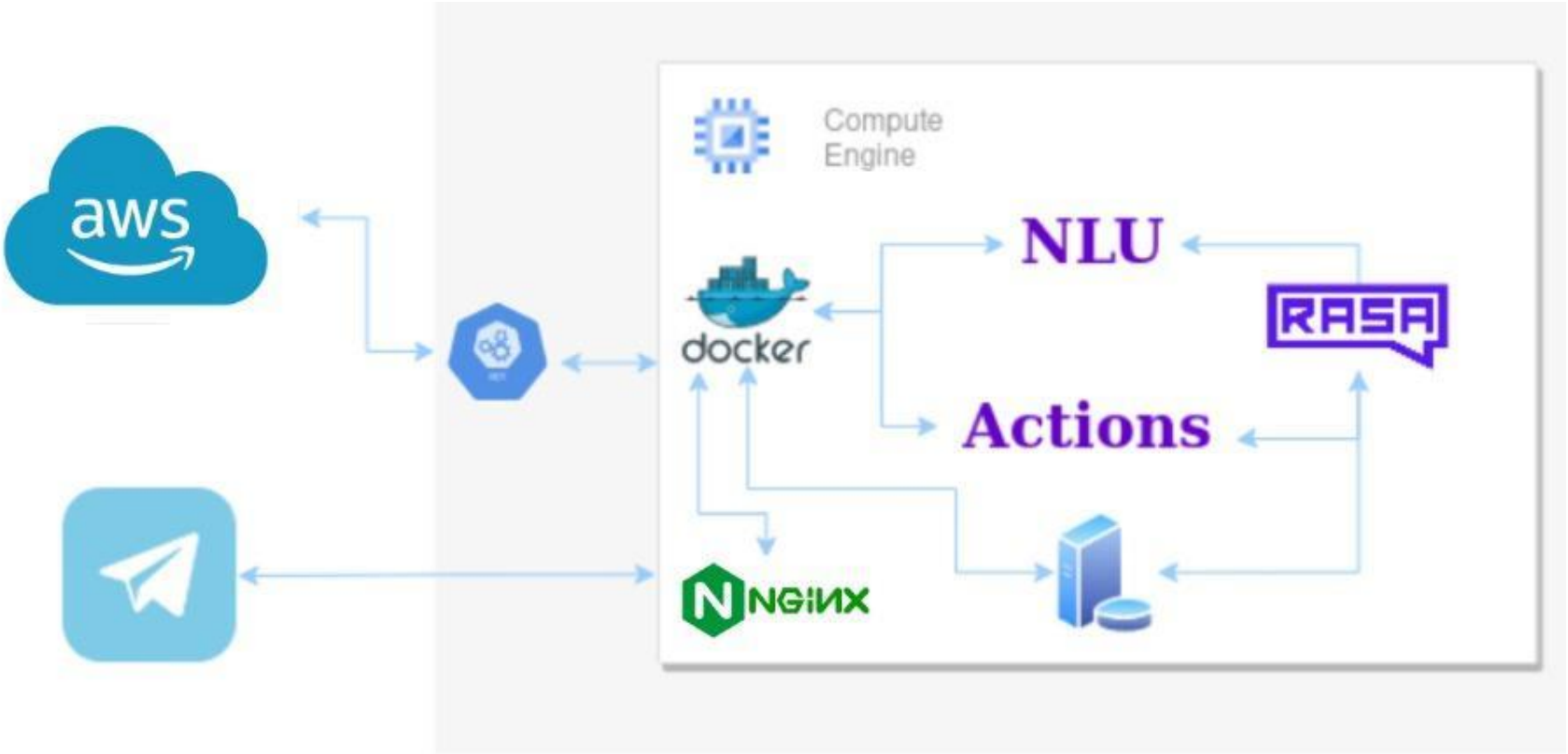
Deployment



Results and Benefits

Preliminary use highlights the following benefits:

- 24/7 support
- Instant responses
- Scalability – can handle large simultenous inquiries
- Global reach and accessibility
- Increased customer experience

QUICK RESPONSE

Conclusion

In Conclusion, Mingo, has been able to achieve the main objective, being a solution that enhances this two-way communication channel, in a split of a second. Based on how the bot has been trained, it can get information related to data science course and achieve over 80% accuracy in the responses.

Recommendations

- Integration with School Systems.
- Data Security and Privacy
- Around the clock Availability
- Continuous Improvement
- Multilingual Support
- Ease of Access
- Monitoring and Analytics

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Limitations

- Data from Moringa Website is not sufficient to facilitate the responses required.
- It’s resource intensive during training as training requires a GPU.
- It is costly as we require cloud storage for hosting.

Next Steps

- Multi language support especially Kiswahili.
- Exploring Database Management System Integration to store user queries for future enhancements.
- Stretch Assignment for Mingo to incorporate all courses for Moringa School

Q & A

Thank You!

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