JMR-NITC Hackathon v2.0

SKEDULR

A PLATFORM-AGNOSTIC EVENT SCHEDULER CHATBOT.

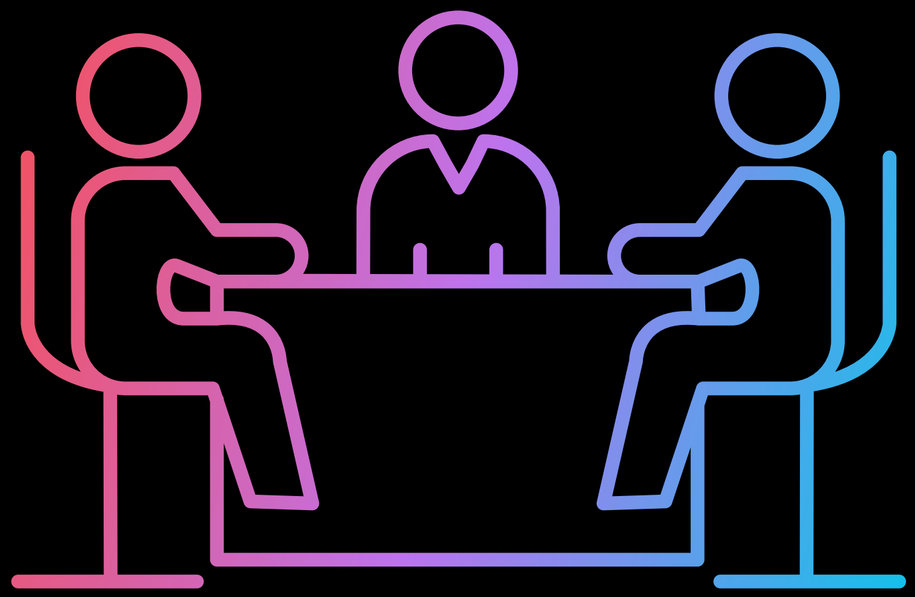
Problem Definition

1. **Given Statement:**
   Create calendar invite via chat conversation

2. Finds use in organisations. Different organisations use **different chat and mailing services.**

3. Need for **conversational meet scheduling capabilities**

4. **Extensible design** and **modularised** design possibilities

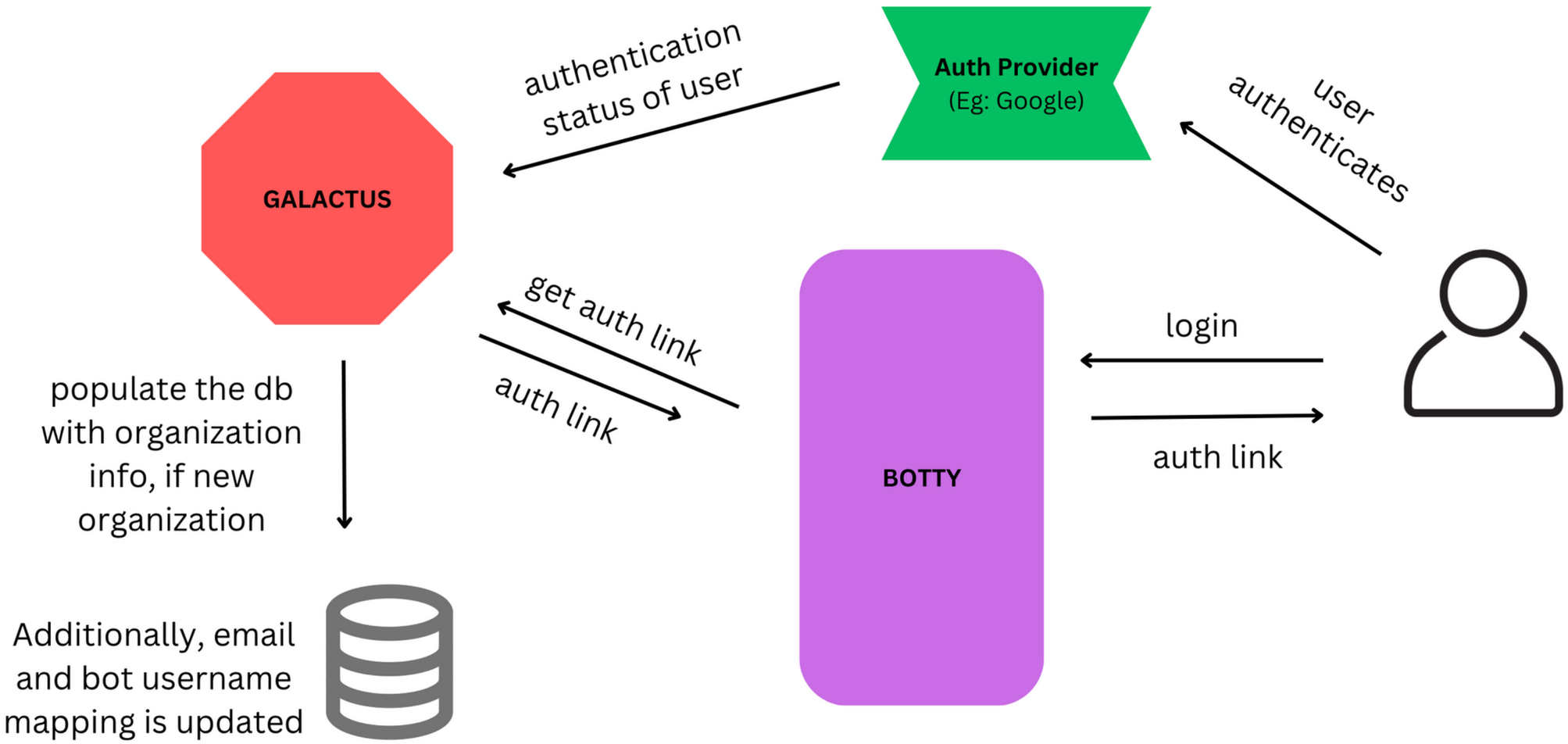


The UseCases

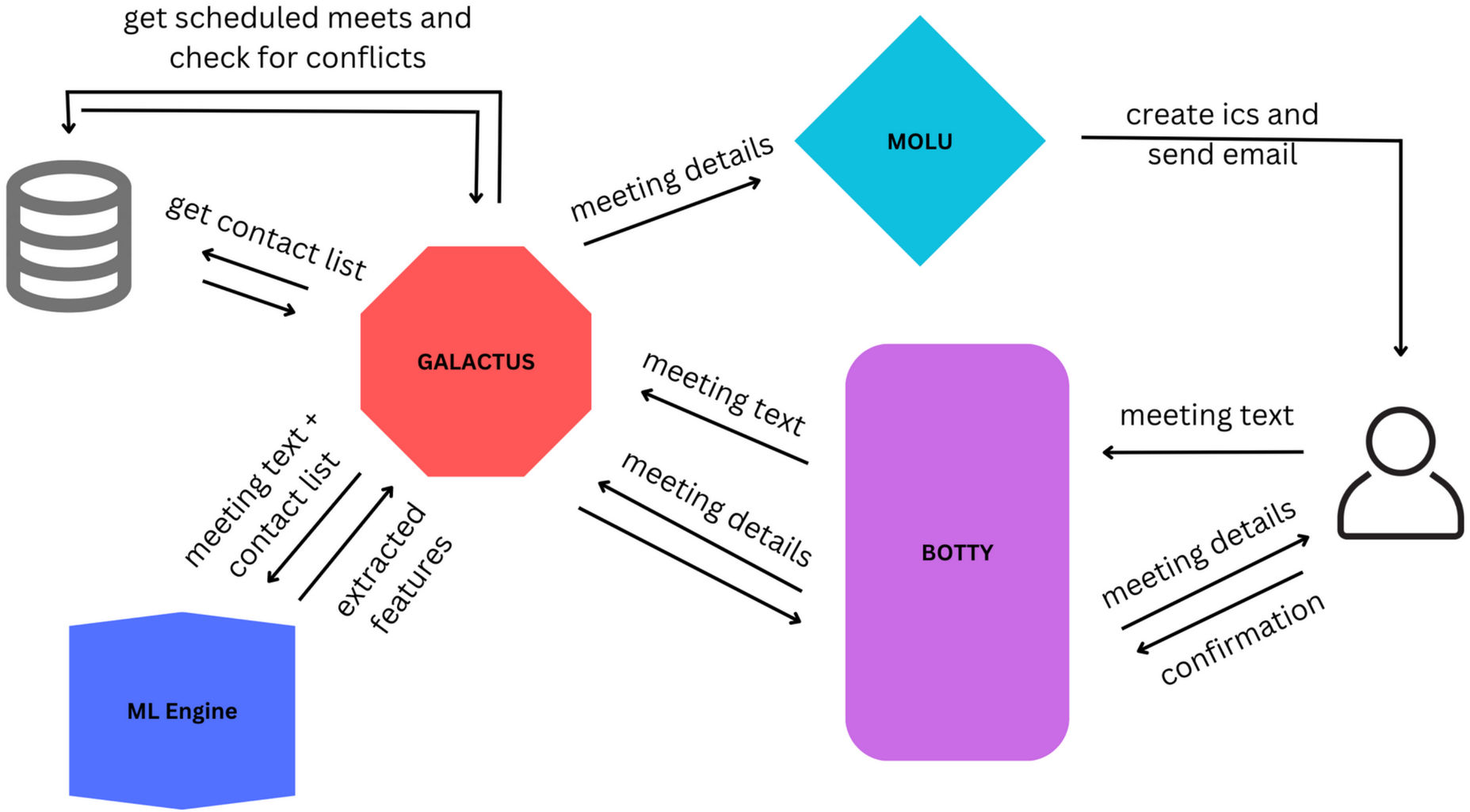
What we do?

- Proper **Authentication Flow**
- **Conversational scheduling** with **NLP**
- People might **misspell** the names of their peers
- The system **handles slot and venue clashes**
- **Extensible design** with micro-services architecture
- Dedicated services for **.ics file** generation and mailing.
- **Notifies users** when they forget to enter **all required meeting details.**
- **Google ecosystem integration** along with **Discord** support.

Authentication Flow



Program Flow



Tech Stack

BOTTY

- Discord bot
- Platform agnostic

MOLU

- .ics file generation.
- Gmail API

GALACTUS

- Central interface between the microservices

MLE *(emily)*

- BERT based ML Engine for effective inference.

MLE

BERT

We use the BERT model built for Question-Answering. We built custom queries to take advantage of BERT's contextual capabilities

FUZZYWUZZY

FUZZY logic based approach for comparing strings to find similarities served efficiently in identifying people despite spelling errors.

SPACY

spaCy's named entity recognition and parts of speech tagging was used along with BERT

PUTTING IT TOGETHER

This NLP engine tried to take advantage of BERT's capabilities and used FUZZYWUZZ and spaCy to deal with more complex cases.

App Demo

Future Scope

BOTS FOR TELEGRAM AND OTHER CHAT APPLICATIONS

This will be easy because of the highly extensible microservices design.

FAST AND EFFICIENT ML ENGINE

Optimize how Spacy algorithms are used and use a smaller BERT model for inference.

EMAIL SUPPORT WITH ANY MAIL SERVICE PROVIDER

Application can be extended for any corporate setting.

DOCKERISATION AND DOCUMENTATION

Dockerisation for easy setup and Documentation with Docusaurus