**Chatbot for MUMA: Project Report**

**Team Maverick**

Uday Ganti | Prasuna Challa | Veera Mukesh Aripaka | Mounica Pothureddy | Anantha Sai Ram Padala

**Introduction**

The chatbot, named "USF BullBot," is designed to assist students with queries related to the MUMA College of Business at the University of South Florida. It is built using Python and leverages multiple technologies such as OpenAI's GPT-4, Pinecone for similarity search, and Streamlit for the user interface.

**Objective**

* Provide accurate and quick responses to common queries from prospective or current business students.
* Assist in the intake process by answering questions about admissions, courses, faculty, etc.
* Serve as a first line of support, efficiently handling a large volume of queries.

**Technologies Used**

* Python
* Streamlit: For the web-based user interface
* OpenAI's GPT-4: For natural language understanding and generation
* Pinecone: For similarity-based search to find relevant answers from a corpus of over 2200 documents

**Features**

**UID Identification**

The bot asks for the student's UID (Universal Identification) before proceeding with query resolution. This is designed to emulate an authentication process, although the UID is not verified for this version of the bot.

**Context Awareness**

The bot uses Pinecone to search through a corpus of over 2200 documents related to MUMA College of Business. This allows it to provide specific and contextual answers.

**Smart Response Generation**

The bot uses GPT-4 to generate responses based on the queries and the context provided by Pinecone's similarity search. This enables it to answer in a human-like manner.

**Token Count**

A token counter is implemented to keep track of the OpenAI API usage to limit excessive resource expenditure.

**Use Cases**

**Example 1: Detail Enquiry**

A screenshot of a chat

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In this example, the student inquired about the key topics that will be taught in a course they are interested in. The bot provides a comprehensive list of the topics pulled from the program syllabus in the corpus.

**Example 2: Action Request**

A screenshot of a chat

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Here, the student requested a mail that they expected to be received to be resent. The bot understands that this is not a task it can perform, so it informs the student about the same and can ensure a complaint is raised with the relevant department.

**Future Capabilities**

* Implementing real-time UID verification.
* Expanding the corpus to include more recent conversations and updated program details.
* Adding functionality to handle multi-turn conversations more effectively.

**A Glimpse of the Future**

A screenshot of a computer

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Here’s how the final chatbot will look. It will collect and store vital information like the student’s admission status and UID before the query is placed. This optimizes the token usage and dramatically reduces the interaction time between students asking a query and getting a response.

**Conclusion**

The USF BullBot aims to smooth the intake process for MUMA College of Business by providing instant, accurate, and context-aware responses to student queries. Its ability to pull specific information from a large corpus makes it a valuable asset for prospective and current students.