Software Engineering II Progress Report 2

Group Name: Five Guys

Group Members:

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Features arranged for implementation from previous sprints

Completed:

Build webpage interface

Input field

Styling interface and ability to close

Support for other devices e.g. enabling it to run on mobile devices

Database creation

Chatbot response system

Relevant answers based on context

User feedback after input

Display of chatlog

NLU to match user input with context

Web scraper for Data Collection to populate Database

Improvement of scraper to gather athlete information

Implementation of subcategories for chatbot to find answers easier

Category and Subcategory Generation

Improvements to how the NLP answers questions

Migration of NLP models to backend for smoother run and quicker load

Implementation of Linux server for

Scraper improvements for athlete information

Use of NoSQL structures for ease of access to information

Testing chatbot response

Proper collection of keywords

Testing for chatbot dependability

- Check if common questions can be answered properly
- Check if chatbot correctly matches input with categories and subcategories
- Check if system runs for more than 24 hrs.

Improvements to Mobile UI

Name recognition for NLP

Handling of unfamiliar input.

Improved functionality on how chatbot's ability to get information and display it.

Name recognition

Incomplete:

Bilingual feature (French)

Analytics Tracking

More greetings

Chat history

Generate help function to display available commands

Features to implement in next sprints

Improvement on design

Improvements on Response structuring

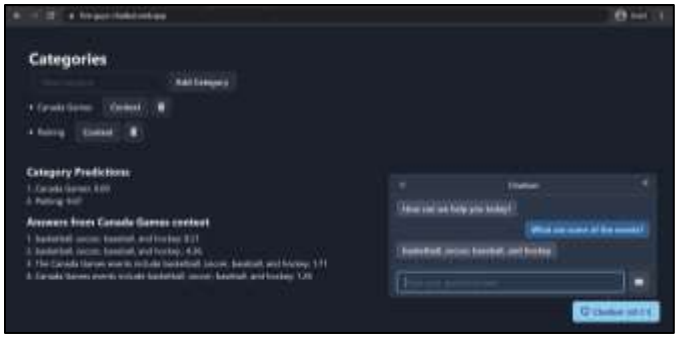
Analytics Tracking and Chat history

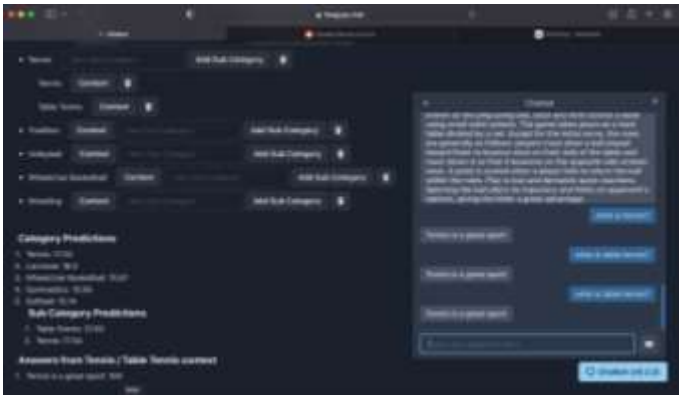
Exporting chat log

More greetings

Description of current progress

Below are some screenshots of the current working chatbot where it provides a greeting, and we have the categories and context it uses to obtain answers to user queries. We have now switched the model to categories and subcategories because it allows us to properly obtain answers and match the context of the query appropriately to the category in question. There is now a connection with the backend and the frontend. The Artificial Intelligent models used that were gotten from tensor flow which were giving us a loading issue at first since they were in the frontend causing the chatbot to be slow running at first and seemed to be unresponsive on certain browsers and iOS devices is now resolved since we have moved it from the frontend to the backend. This has also been improved more with the implementation and use of a Linux server called “digital ocean”. The categories and subcategories displayed on the website are just for the group’s visual representation to easily modify and add ways to test the chatbot and understand it’s functionality when paired with the code. To see more of the connection between the backend and the frontend and how the models work in the backend check out our server on our GitHub (https://github.com/Muqtha/COSC-4P02-Project/tree/main/Server). This will be removed during the final stages before deployment. The server now uses the models to understand user input/queries passed in from the frontend, match the context of the query with the correct categories and subcategories, searches them for an appropriate response and then passes the response over to the frontend which then uses what it has obtained to display. Also seen from the pictures below a scroll bar to view previous chat with the bot has been implemented as well as feedback to let the user know that it has received their question and they are to wait for a response. There is also a close button at the top and the ability to minimize the window of the chatbot is done by pressing the chatbot again the same way it was opened. In order to fully use the chatbot in its current state of development after running the bot on your browser you must first import the json file https://github.com/Muqtha/COSC-4P02-Project/blob/main/Categories(v-1.0).





Challenges Encountered

Communication - Resolved

Version Control – Resolved

Connection to DB – Resolved

Containerizing – Resolved

Quicker loading of models for NLP - Resolved

Contributions and achievements

Al-Muqthadir Ajiboye – Generation of User Stories, Implementation of Backend, Implementation of communication between Backend and Database, Communication between Backend and Frontend, Finding bugs or errors in the chatbot and the system, Backlogs, Organization of GitHub files, Progressive implementation on greeting messages and structuring.

Nosetama Imoisili – Generation of User Stories, Web Scraper, Improvements on Web Scraper to obtain athlete information, Database, Implementation of communication between Backend and Database, Communication between Backend and Frontend, Progressive implementation on translator for bilingual features, Finding bugs or errors in the chatbot and the system, Web Scraper improvements for Niagara Games Site.

Zach Yerrill – Docker and containerization of chatbot and Web Scraper, Finding and correcting bugs or errors in the chatbot and the system, Backlogs, Organization of GitHub files, Generation and testing of common questions and their answers.

Michael Woody – User Interface, Design, Basic I/O, Implementation of NLP, Migration of AI models from Frontend to Backend, Implementation of Linux server, Improvements to Server and Frontend communication, Improvement of Mobile UI, Changed structure of chatbot from use of DB and SQL to NoSQL and Json files, Improvements made to NLP for name recognition. Progressive improvements to Mobile UI, Troubleshooting and fixing issues with chatbot and bugs in the system, Implementation of features for use of NoSQL.

Jordan Chilcott – Structure for Pre-Generated Responses, Category and subcategory generation

Yanis Souiki – Backlogs, Changed structure of chatbot from use of DB and SQL to NoSQL and Json files, Finding bugs or errors in the chatbot and the system, Worked on the Backend for the subcategories for the NLP, Progressive integration of google analytics with chatbot.

Kam Sadiq - Generation of User Stories, Generation and testing of common questions and their answers, Progressive implementation of obtaining chat history and logs.

Christian Perdigao – Schedule Organization, Backlogs, Implementation of communication between Backend and Database, Changed structure of chatbot from use of DB and SQL to NoSQL and Json files, Troubleshooting and fixing issues with chatbot, json files and bugs in the system, Head in category and subcategory generation and chatbot testing.

Link to Reports on GitHub: https://github.com/Muqtha/COSC-4P02-Project/tree/main/Reports