Brock University Chatbot
Report 1

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2. Planned Systems of past sprints

Sprint 1: Sprint One revolved around getting a skeleton front end done that is usable on all major modern web browsers. This was done by creating a very basic skeleton front end which included the ability to chat with the bot via text so that the user can get some information. There was also a very basic aspect of scraping that needed to be done, just as a proof of concept. This was accomplished by allowing the user to find information on the clubs. We were very successful in regards to this sprint as we were able to cover all the needed tasks.

Sprint 2: Sprint Two was the more major sprint with regards to the development of the chatbot. This included a major revamp of the front end so that it takes more space on the page, along with being user-friendly. We also worked on the scraping and NLTK aspects of the chatbot so that we are able to work on a more robust version of the product. Overall things such as clubs and department contact info were able to be scraped as well as much more, so this sprint was very successful as well.

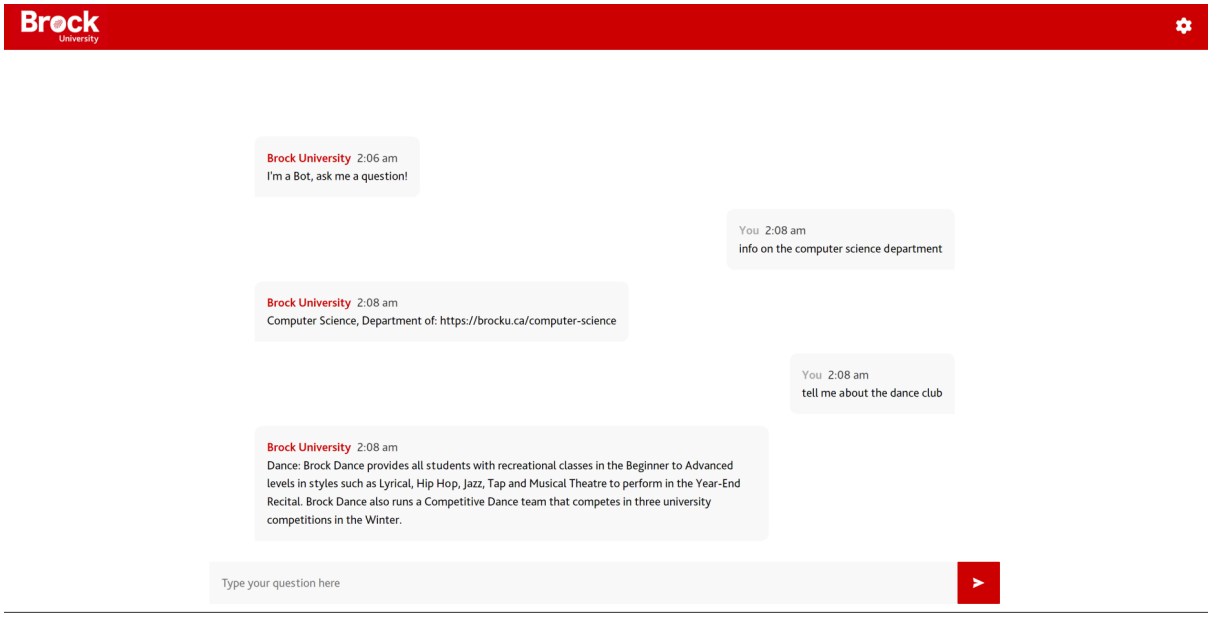
Overall Progress of first two sprints: Front end largely completed with few additions needing to be added. The basis of the natural language processing has been set along with a very large number of pages being scraped.

3. Planned Features for future sprints

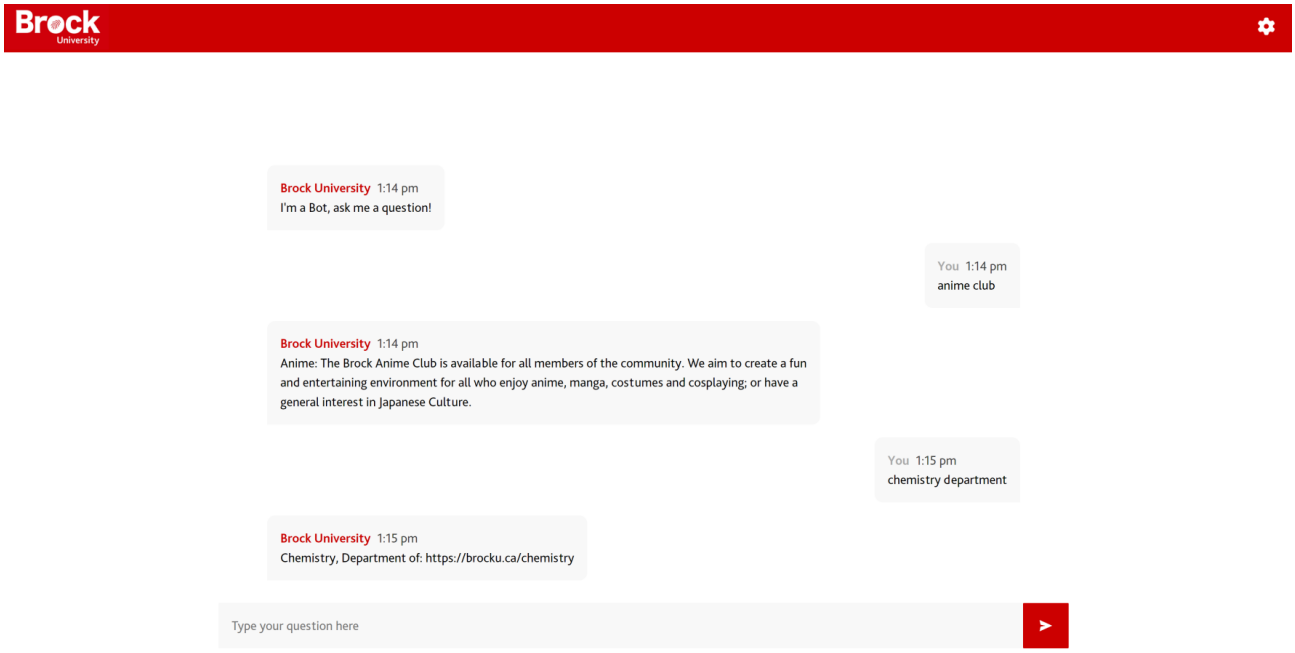
The features that will be implemented in Sprint 3 are as follows: The completion of major scraping systems so that all pages can be automatically scraped by the beginning of the day and up-to-date info is provided to the user. There will also be changes to the front end so that a modal is added upon the introduction of the chatbot, as well as some more indicators to inform the user that the bot is working.

The features that will be implemented in Sprint 4 are as follows: The complete implementation of the front end of the system, along with a settings selector pop up containing a couple of settings that can be adjusted, a more advanced natural language processing system so that the chatbot can easily identify what information the user is asking for, and lastly the ability to notify users if the information they want is not available yet.

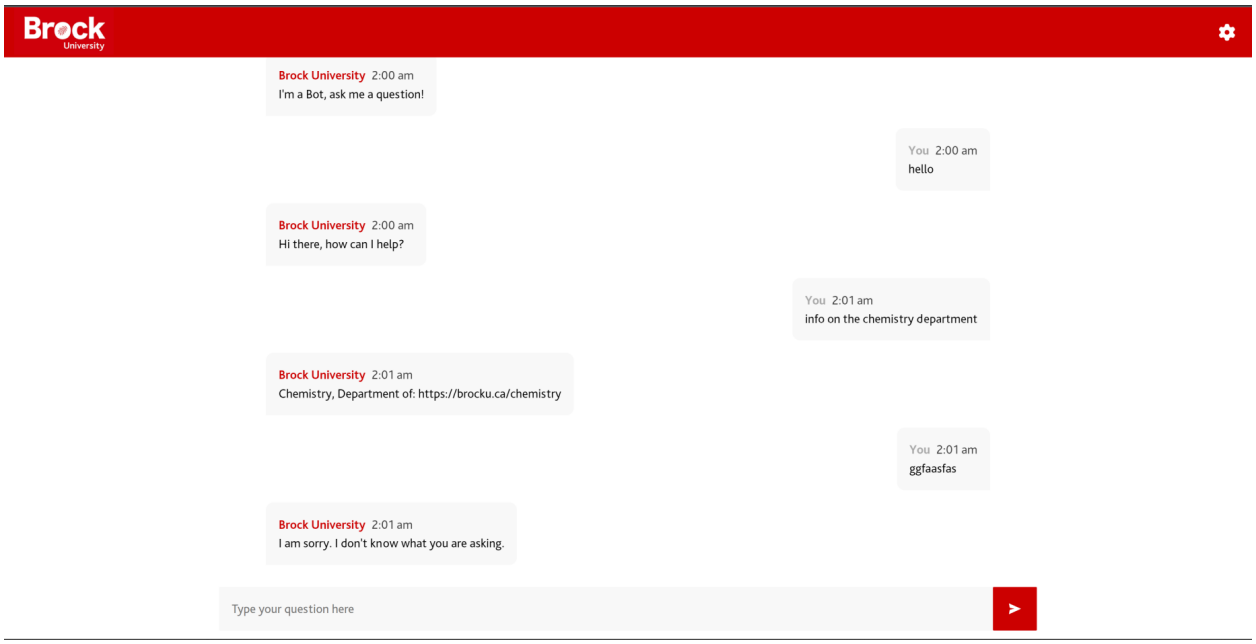
4. Screenshots



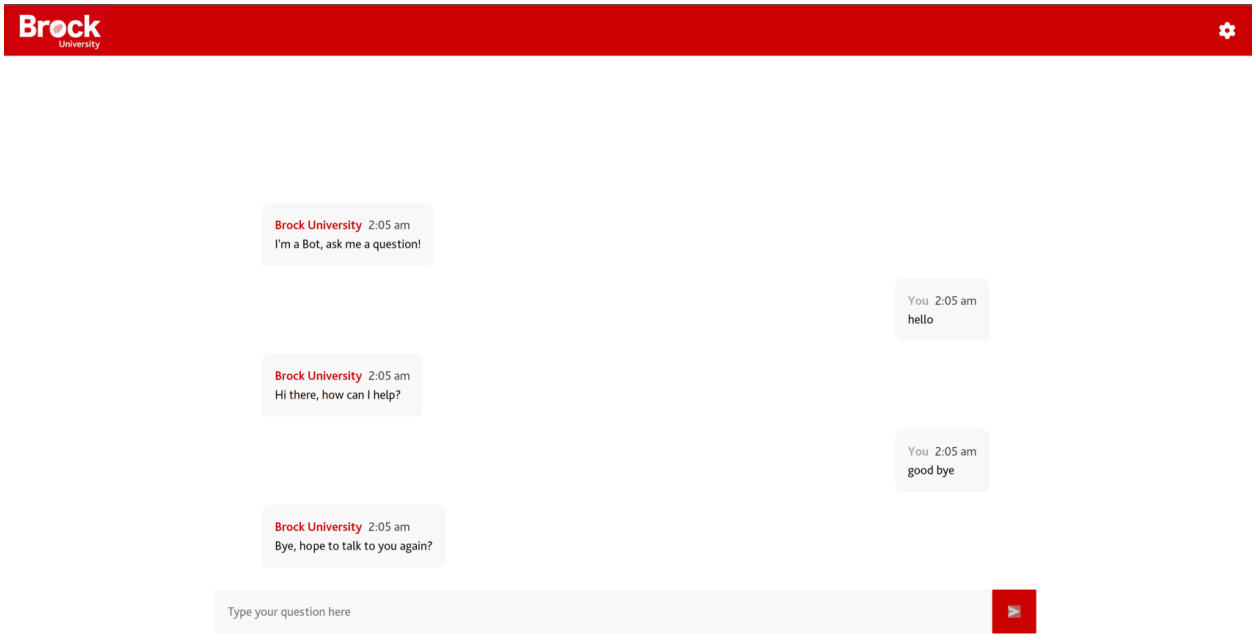
Example of the NLTK version of the chatbot system telling the user about the dance club at Brock University.



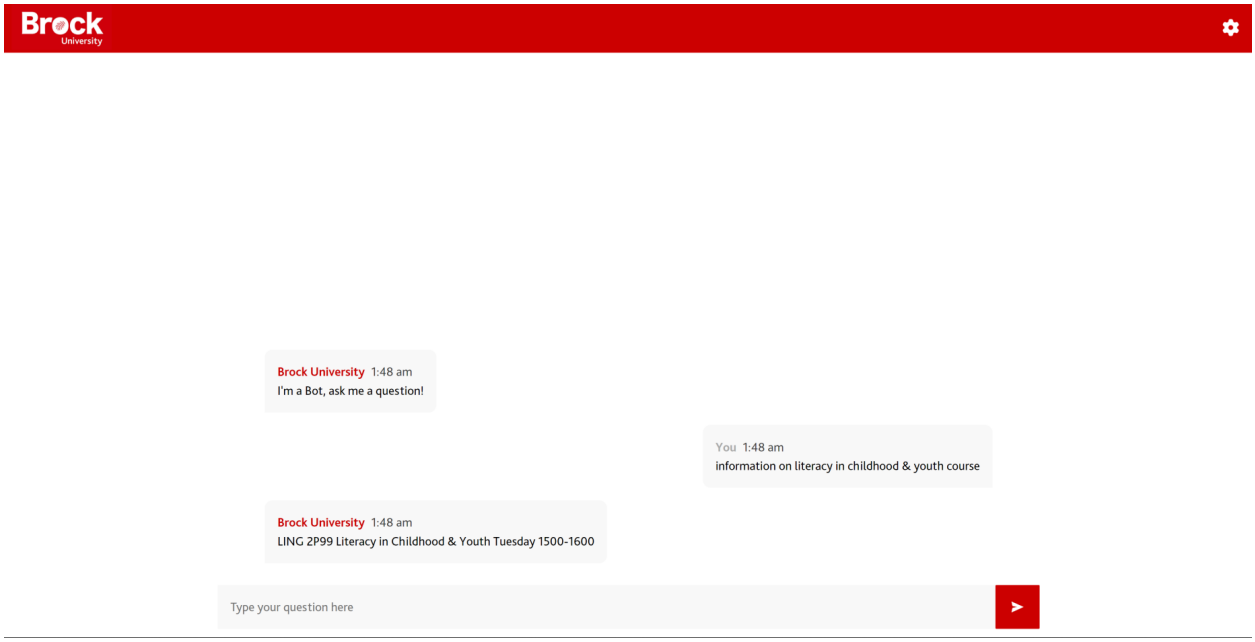
Example of NLTK version of the chatbot system for departments. This takes simple Natural Language Processing and outputs info to the user.



Example of chatbot when the user asks something the bot does not understand



Prompting a goodbye response from the chatbot



Prompting a course information response from the chatbot

5. Issues

The only real issue regarding the team was trying to get everyone on the same page while working in the early stages of the project. Since this was our first time working with the chatbot, there were some ambiguities of who should focus on what part of the system, whether it be back-end or front-end. We solved this by dissolving the team into two sub-groups, the Front-End team, and the Back-End team. These subteams coordinated the tasks that each required to build parts of the program which were then integrated. On the development side, the main issue we ran into was mainly in regards to scraping. Since the Brock website is formatted in many ways, it became difficult to develop a cohesive plan in regards to the standardization of scraping, so we had to approach each page on a case-by-case basis.

6. Group Contributions

Marmik Bhatt-
Role: Group Leader
Contributions: Coordinated group meetings on both MS teams and subsequent emergency meetings. Worked on written documentation along with helping with the Front-End development.

Lucas Kumara
Role: Co-Technical Lead

Contributions: Worked on both the Front-End and Back-End to develop the system architecture which serves as the basis of what you see on the chatbot today. Currently working on tuning up and adding to the scraping subsystem.

Liam Mckissock
Role: Co-Technical Lead

Contributions: Worked on the Front-end along with taking the lead on the Natural Language Processing aspect of the system. Currently tuning up the Natural Language portion of the system along with helping with scraping.

Jakob Shortell
Role: Back-end programmer

Contributions: Worked on the back-end scraping system, provided support or contributions wherever they were needed when it came to developing the scraping systems. I.e the Courses page among others.

Hyejin Kim
Role: Back-end programmer

Contributions: Worked on the back-end scraping system. This involved pages such as the restaurant page so that the chatbot could cover all aspects of the user experience. Also helped with modularizing and refactoring the code.

Tom Wallace
Role: Back-end programmer
Contributions: Since most of the Front-End was done. Tom provided support in developing the other pages of the system that were needed for scraping such as the Examination page. Since being able to grab info from the website was such a huge part of the project we had a large volume of individuals working on it.

Aedel Panicker
Role: Back-end programmer
Contributions: Worked again with the team to help develop the scraping system such as the program scraper, so that the technical leads could focus on other aspects of the system that need attention, such as improvements in other back-end portions of the system.