In this video I will give you a brief description about what are chatbot is based on, what it does, and the features based on the API’s we have implemented that would enhance the functionality of our bot.

The chatbot that we have decided to implement for our project is an otaku chatbot. Our chatbot can tell the user about popular anime in a specific genre. It can also talk about popular mangas, manwuas, anime conventions and otaku culture in general.

For this assignment I have decided to implement 2 more features.

1. Pos tagging: The Pos tagging feature allows the chatbot to recognize and label different parts of speech as nouns, pronouns adjectives etc. We made use of POS tagging to recognize proper nouns, so that if there is a question in a particular topic that the user asks the bot about, and the bot doesn’t know the answer to it than the bot can retrieve the information from Wikipedia and give it to the user. We have also used POS tagging in conjunction with sentiment analysis to judge the different emotions of the user more accuratelty. Since sentiment analysis in itself is not always accurate, so we had to use POS to make our bot more precise with its judgements.
2. Sentiment analysis: This tool aids the bot in recognizing the emotions of the user by analysing the “tone” in which the user asks the questions. Analysing how the user is feeling also allows the bot to respond in that manner, therefore giving it a more human touch. Here is an example of the sentiment analysis in action
3. The next feature we implemented is the ability to view the recent conversations that the user had with the chatbot. This feature could be particularly useful if the user wishes to view his most recent conversation with the bot, so he does not have to necessarily ask the bot the same questions again. Here is how the recent chatlog looks:
4. The final feature that we have implemented for this project is the synonym recognition. This feature allows the bot to respond to questions with better accuracy.

Next we are gonna touch upon DFD’s:

This is our level 0 DFD, as you can see we have two entities namely, The user that is using the chatbot and the developers, which would be our entire team. The way the developers interact with the chatbot is by implementing new features fixing any bugs etc.

This right here is our level 1 DFD. Like the level 0 DFD we still have our developer and user as our entities. We have our synonym recognition, POS tagging and sentiment analysis as our processes. Our synonym recognition process works on the intents that is already in the dataset. Whereas the POS and sentimental works when only when the user has typed something on the UI and the bot prepares its response by picking required response from the dataset which is symbolized by the datastore at the bottom. We have another datastore that stores the conversation log named “conversation log”, the option to store this conversation comes from the UI

Now to discuss about the task division among our group members for this assignment.

Sirus : was responsible for creating and implementing the tests for the chatbot

Hung: he was responsible for updating and the WBS and the gantt chart and also fixed the bugs

Joseph: he was responsible for creating the readme file and the github automated testing

Anshul: he was responsible for implementing the major features (POS tagging, chat logs, synonym)

Jayant: he also helped Anshul to implement the features and make the presentation