

README

ASSIGNMENT 3

5 points: Make a simple GUI so that the user is typing into a nicer interface and can view a recent history of the conversation.

In the group assignment, there was a simple gui that did not have functionality to view a recent history of the conversation. The new gui is implemented that has nicer interface and user can view a recent history.

Please run the **finalGui.java** class.

5 points: Add a feature that enables your agent to handle spelling mistakes of the words that your agent is supposed to recognize.

The language tool has been implemented. It was working fine initially, but not working properly right now.

SpellChecker.java

10 points each: Use of language toolkits, incorporate feature to improve your conversation's flow.

1. POS tagging -Stanford toolkit
2. OpenNLPoNamed entity recognition -Stanford toolkit

POS&NER.java

Parts of speech tagging and Name Entity Recognition are implemented using the Stanford toolkit, available here:

<https://nlp.stanford.edu/software/tagger.shtml>

<https://nlp.stanford.edu/software/CRF-NER.html>

After implementing these nlp, the bot gets ability to identify and use different parts of speech (noun, pronoun, or verb etc.), and name entity of a person or location from the user's input. It works fine, sometimes not getting meaning results.

Sample with relevant words

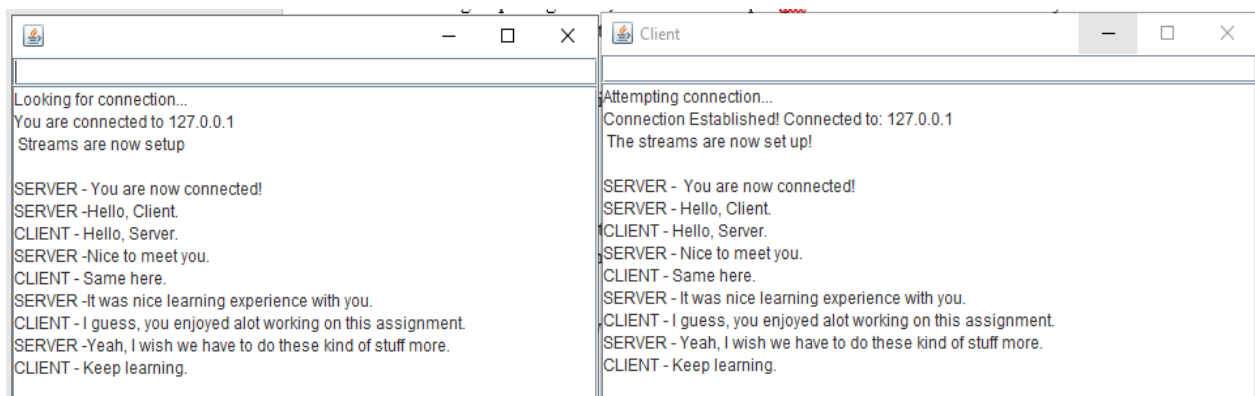
Luke: Hi! What's your name?
User: deep
Luke: It's nice to meet you, deep. What do you do for a living?
User: student
Luke: You are a student? Sounds neat.
User: you look like our classmate David.
Luke: I dont know David. lets talk about ourselves.
User: What are your hobbies?
Luke: My hobbies are yoga, building canoes, digging holes, auto repair, extreme couponing,

User: I love to being in Kelowna.
Luke: Kelowna. Indeed. Its is a nice place
User: What food you do likes?
Luke: food!!! The food I like eggs, bacon, almond, fish,

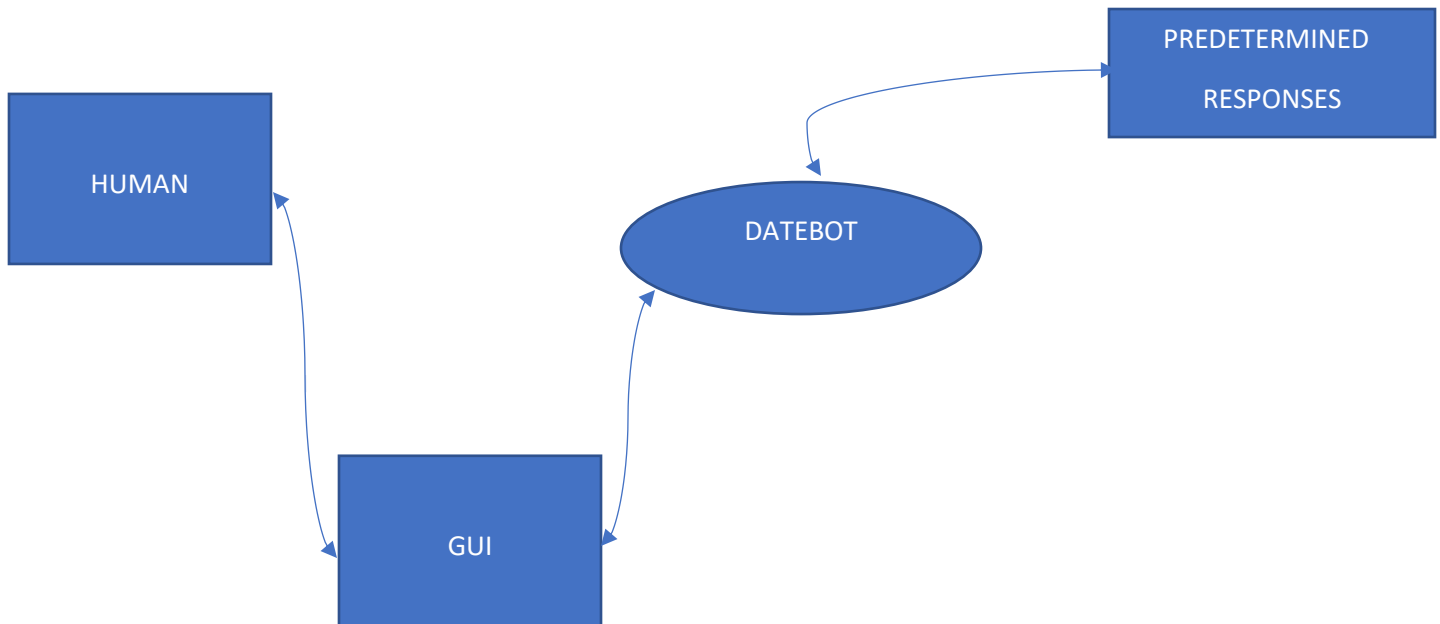
15 points: Conversation with another agent (built by a student in this class) via sockets

Sockets are designed to allow ChatBot to talk to another ChatBot. The simple IP-based system that allow a user of the client side to interact with the server. Output and input are passing back and fourth.

Please run **ServerTest.java** and **ClientTest.java**

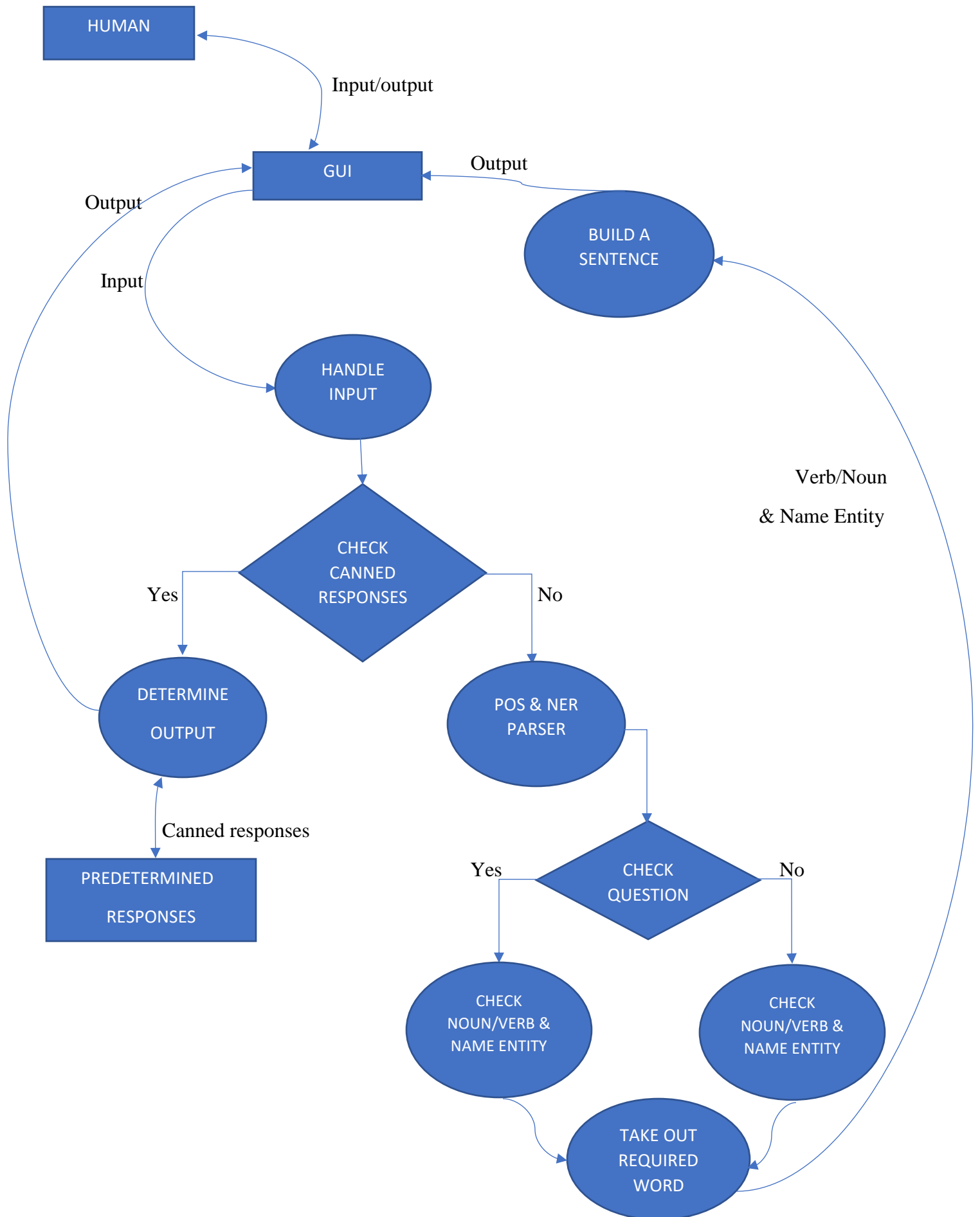


3 points: Provide a Level 0 DFD for your system with description.



Description: The above DFD is a basic visualization of data flow to and from chatbot. The human will provide/receive input/output through GUI. All the information will be processed in the chatbot, and the chatbot scanned the input, process the input and provide the preterminal responses. The information goes back and forth.

5 points: Provide a Level 1 DFD for your system with description.

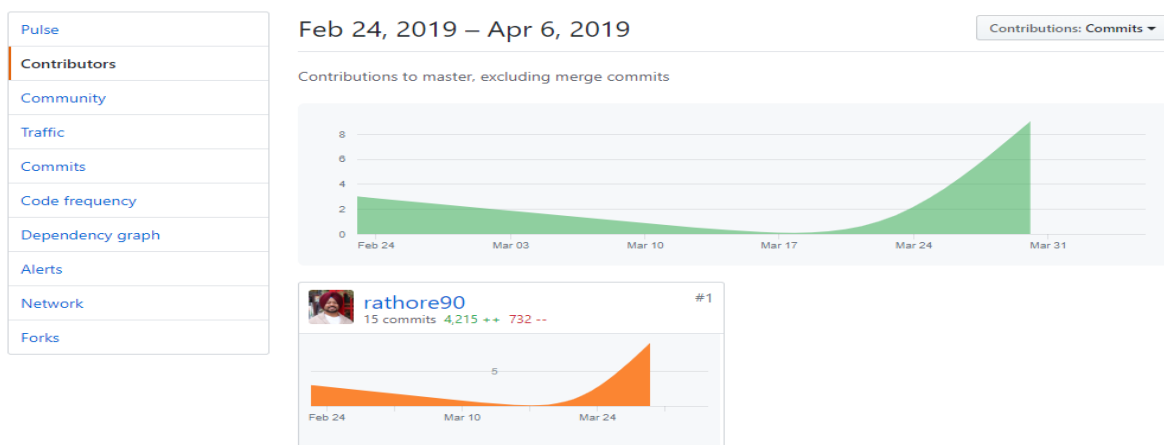
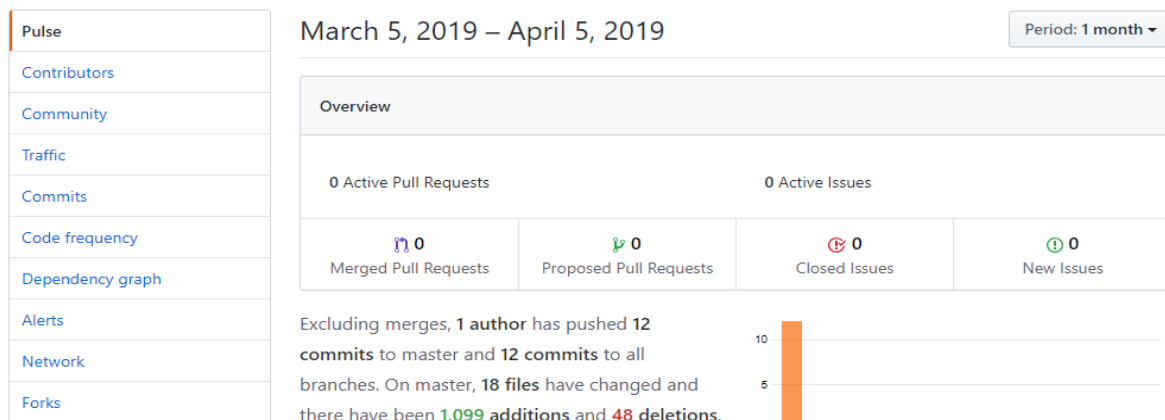


Description: The above DFD is the level 1 data flow diagram, which demonstrate the inner functionality of the Datebot. As soon as the user provide the input, the language tool will be triggered. Once the input is received, the Datebot checks the canned responses. If the input relates to the canned responses, it generates the output. If not, the input will be passed to POS&NER (Part of speech & Name Entity Recognition) class. This class creates the tokens of a string, and demonstrate the noun, verb etc., or name entity for each token. According the appropriate token a sentence is generated, provides that sentence as a output to a user,

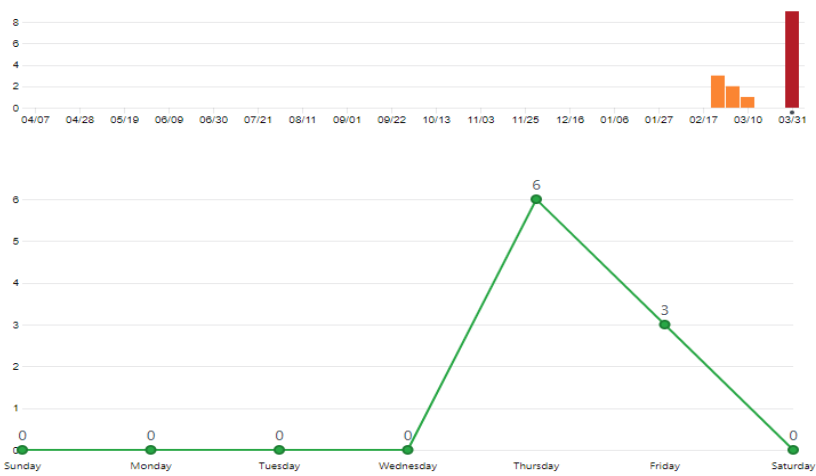
5 points: Submission of your GitHub repository. Graph showing different features developed on a separate branch and the commits made in the repository.

<https://github.com/rathore90/ChatBot>

As it was individual assignment and the work was not dependent on other group members, there was not frequently commits.



Pulse
Contributors
Community
Traffic
Commits
Code frequency
Dependency graph
Alerts
Network
Forks







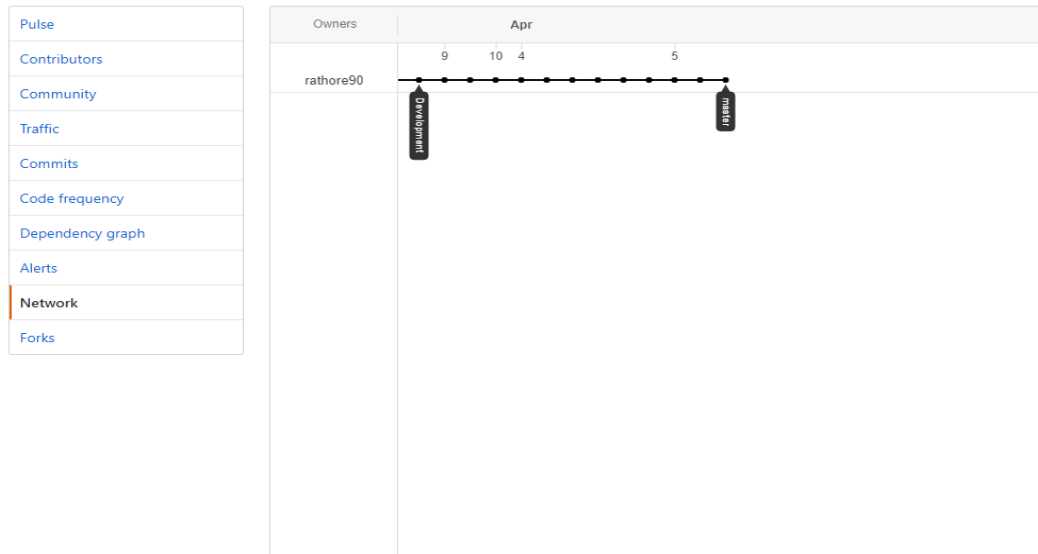
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Dependency graph

Dependencies Dependents

These dependencies are defined in ChatBot's manifest files, such as [310_Project/pom.xml](#).

Dependencies defined in 310_Project/pom.xml 4			
	stanfordnlp / CoreNLP	edu.stanford.nlp:stanford-corenlp	3.2.0
	stanfordnlp / CoreNLP	edu.stanford.nlp:stanford-parser	3.2.0
	languagetool-org / languagetool	org.languagetool:language-en	4.4
	languagetool-org / languagetool	org.languagetool:languagetool-core	4.5



5 points: Include sample output in your project report. Have one dialogue (at least 30 turns) that show a good or feasible conversation --ensure your new features are demonstrated!

The following is an example of an ideal conversation with our dating bot. Of course, conversations will

vary depending on the user.

1 . Chatbot: You are on a blind date. Would you like to date a man or a woman.

User: woman

Chatbot: You are now on a date with a girl named Kiera

2. Chatbot: Hi! I'm Kiera, what's your name?

User: My name is James

3. Chatbot: It's nice to meet you James. How are you?

User: I'm fantastic

4. Chatbot: That's good to hear.

User: How are you?

5. Chatbot: I'm doing well, thanks.

User: What do you do for work?

6. Chatbot: I am a chef

User: That's cool

7. Chatbot: What do you do for a living?

User: I am an astronaut

8. Chatbot: An astronaut? That's cool!

User: Thanks

9. Chatbot: Seen any good movies lately?

User: I like toy story and the road to el dorado

10. Chatbot: Oh I haven't heard of those movies

User: What movies do you like?

11. Chatbot: I like cars

User: That's a good movie

12. Chatbot: What genres of music do you listen to?

User: I listen to rap, reggae, hip hop, and techno

13. Chatbot: I don't like rap sorry.

User: What music do you like?

14. Chatbot: I like instrumental, classical, and jazz

User: I love Frank Sinatra.

15. Chatbot: What countries do you like?

User: I like peru, japan, and china

16. Chatbot: I like china too!

User: That's cool

17. Chatbot: What are your hobbies

User: I like winemaking, beekeeping, and building canoes

18. Chatbot: I like beekeeping too!

User: What are your hobbies?

19. Chatbot: I like beekeeping, auto repair, and magic tricks

User: That's neat

20. Chatbot: What are your favourite sports?

User: I like hockey, curling, and skating

21. Chatbot: I like hockey too! I don't like curling sorry

User: It's a fun sport. What sports do you like?

22. Chatbot: I like hockey, surfing, and wakeboarding

User: How old are you?.

23. Chatbot: I am 22 years old

User: I am 23 years old

24. Chatbot: Lets play rock paper scissors! Pick rock, paper, or scissors.

User: rock

25. Chatbot: I picked rock. We tied, that was so fun!

User: F*** you

26. Chatbot: Watch your language

User: What the hell! I wanted to win

27. Chatbot: You kiss your mother with that mouth?

User: You're a fool!

28. Chatbot: Don't call me names!

User: I'm sorry

29. Chatbot: I'm sorry I'm out of things to talk about! This has been fun.

User: Goodbye

30. Chatbot: Bye!

Document a list of limitations of your program and have at least two short dialogues that show when your agent is not able to handle the conversation properly.

Limitations

- Can't handle spelling errors properly
- Has trouble with synonyms
- Limited Vocabulary
- Limited Interests/Things to talk about

- Responses are limited.
- Very base layer on a wide span of interests.
- Unable to “dive” into any interests