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CS 4395.001

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ChatBot Report: Meb

System Description

Meb is a bot that was made for anyone who likes corny jokes or some simple riddles. It is

a little passive aggressive and it remembers the users likes, dislikes, opinions, their wisdom

(number of riddles they answered correctly), and their sense of humor (number of times they

laughed at a joke). It is encouraged to try to be mean to Meb.

This system requires Numpy, NLTK, TensorFlow, and TensorFlow.Keras to run. This

system was largely inspired by [1]. I used the images in [1] to walk through making a model for

classifying user input and appropriate user response. There are three files: A main.py file that

holds the program, a JSON file that holds the possible chatbot responses, and a user txt file that

holds the users that have used the program. This system loads the JSON file as input for the

Keras Sequential model and loads in the user data into a user dictionary. The dictionary contains

the users likes, dislikes, their wisdom (float), whether they have a sense of humor (float), and

their opinions. The JSON file has tags, the patterns to trigger the tags, and responses to respond

to the triggers. The JSON file is my knowledge base, and I hardcoded all of it.

The system uses NLTK to tokenize the patterns and places those tokens in a data_X list

and a Words list and the tags are placed into a data Y list and a Classes List. The Words List are

lemmatized and lowercased and both the Words and the Classes are both sorted into their own

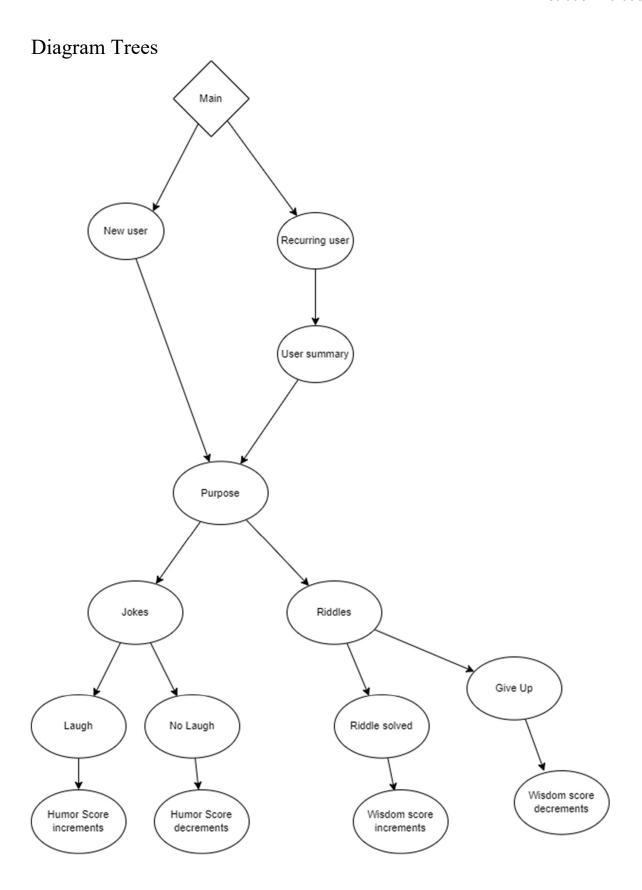
Set. An output list is filled with zeroes and its' size is initialized to the length of all unique

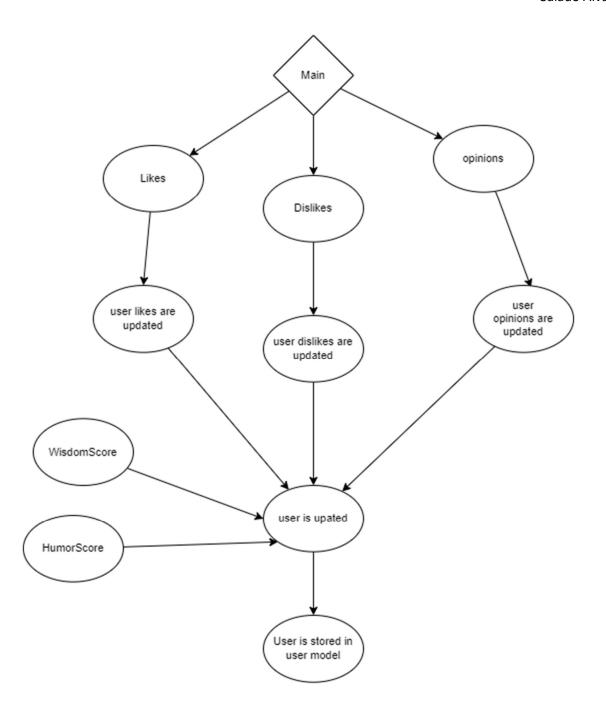
Classes. The system then enumerates data_X (the tokens of Patterns) and creates a bag of words in which the lemmatized tokens are translated to One-Hot notation [1]. An output row is created in which the tags are also translated into One-Hot notation [1]. A training list where all patterns are held along with the tag that they belong to, both in One-Hot notation [1]. The system then shuffles the training list and creates it into an NumPy array. It then splits the training list into two, where train_X represents the features and train_Y represents the target variables [1]. The system then creates a sequential model. It adds 3 hidden layers, the first is 128 nodes and it uses the Rectified Linear Unit (ReLU) function. The second layer has 64 nodes and uses the ReLu function [1]. The third layer has as many nodes as the length of an element of the target variables [1]. Between the layers there are two dropout layers that help prevent overfitting, their threshold is 0.5 [1]. The model uses the Adam optimizer which uses a learning rate of 0.01 and a decay of 1x10^-6 [1]. The model is compiled using categorical cross-entropy as a loss function and accuracy as the metric [1]. This is all to compile the model, now onto the user input and response.

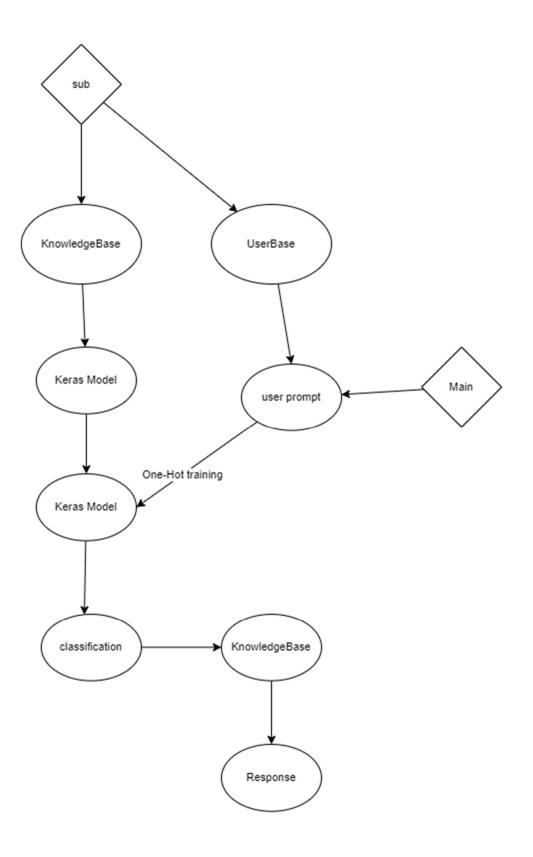
The user input is first tokenized and lemmatized using NLTK. Then it translates it into bag of words, so One-Hot notation [1]. It then predicts what possible classes this input could be related to by calculating the probability it belonging to any of the classes [1]. If the probability is greater than the threshold, .5, then it is added to the intents list. The intents list is sorted from highest probability to lowest [1]. It then randomly chooses from the intents list (essentially random walk). If there are no possible predictions, the system says that it doesn't understand. Otherwise, it randomly chooses a response from the corresponding class.

The system performs differently when you ask it for riddles, where it will only let you exit if you get the right answer, or you type QUITTER. Asking for hints is fruitless, and Meb

refuses to give you the answer. You can ask it if it remembers what your opinions are, what your likes are, and what your dislikes are. You can even ask it to tell you something and it will respond another user's opinion. It starts off by asking you if you have been here before and loads your profile when you put a valid name. It finishes when you type EXIT and it prints out your stats after adding you to the user file.







UserModel appendix:

Stephanie Likes: Stars Glitter cows Dislikes: Puppets Loud_Noises StatsW-H: 0.1 0.2 Opinions: we should explore space I am in love

Martha Likes: Apples Long Walks Good Thrillers Dislikes: Monsters Sharks Scary_Fish StatsW-H: 1.0 1.0 Opinions: everyone_should_love_apples that I Love my boss

Murr Likes: Chinese Buffets Running Marathons Dislikes: breaking_bones StatsW-H: 1.0 0.0 Opinions: Politice need better training Jupiter is cool

Scrooge Likes: Money Hoarding Dislikes: Spending_Money Charity StatsW-H: 0.5 0.5 Opinions: all_money_should_be_mine I_am_the_greatest_person_ever meb repeats the same thing over and over again meb sucks

Goofy Likes: his Son adventures talking to meb running from the cops you Dislikes: tough_situations to_die know StatsW-H: 1.0 1.0 Opinions: my_son_should_spend_more_time_with_me friends_am_forever meb_did_a_good_job_remembering meb_needs_soap_in_their_mouth

Cinderella Likes: fancy balls glass slippers her darling prince Dislikes: evil_stepmothers no_good_cats curses StatsW-H: 1.0 1.0 Opinions: her fairy godmother is so cool love is real mice can speak

Mia Likes: frogs manuel my puppies, they are so cute Dislikes: you StatsW-H: 1.2 2.0 Opinions: asparagus_is_stinky meb_is_rude I_dont_cam_what_Meb_will_remember meb makes me sad when he doesnt give me the answer to his riddles

J-Dawg Likes: jokes riddles Dislikes: meb meb_so_much mebs_attitude StatsW-H: 1.5 1.3 Opinions: meb_should_be_decomissioned all_girls_am_pretty dogs_am_cool

Wurt Likes: toads frogs wearing a pan on my head Dislikes: the_forest sadness StatsW-H: 1.5 1.5 Opinions: all birds should be friends greg is the coolest big brother

Knowledge Base appendix:

```
"intents": [
    "tag": "meanieHead",
     "patterns": [
       "youre mean",
       "mean",
       "thats mean",
       "that's mean",
       "you're mean"
     "responses": [
      "If I were being mean, you'd notice",
       "They don't pay me to be nice",
       "My name is Meb, what did you expect?",
       "I know, I try",
       ">>>>:))))))"
    "tag": "identity",
    "patterns": [
       "meb",
       "Meb", "who is Meb"
     "responses": [
       "Meb stands for Manuel's Eccentric Bot",
      "I am Meb, you lack the remarkable ability to notice my name next to my prompts",
       "Meb is my name, but my dad calls me Scrub"
    "tag": "searchForMe",
    "patterns": [
       "google",
       "search",
       "internet",
       "help me find"
    "responses": [
       "that's not my job, ask Google"
    "tag": "romance",
    "patterns": [
       "who is she", "who is your girlfriend", "are you dating anyone"
     "responses": [
       "ELIZA","Miku is my side"
```

```
"tag": "romance2",
"patterns": [
  "is that your girlfriend",
  "wife",
  "significant other",
  "girlfriend",
  "do you have someone special",
  "love anyone",
  "love",
  "special", "do you love anyone?", "lonely", "are you lonely"
"responses": [
  "I wish I had someone to hold",
  "I wish I had someone to hear me",
  "I wish she was my girlfriend",
  "thinking about her...",
  "I should probably call her..."
"tag": "greeting",
"patterns": [
  "Hi there",
  "How are you",
  "Is anyone there?",
  "Hey",
  "Hola",
  "Hello",
  "Good day",
  "howdy",
  "hi",
  "yo","nice to meet you","Heya"
"responses": [
  "Salutations",
  "Bienvenue",
  "Yo",
  "Meb reporting, what's up"
"context": [
"tag": "sorry",
"patterns": [
  "I am sorry", "sorry", "im sorry", "i'm sorry"
"responses": [
  "good, you should be",
  "it's ok, I have learned to lower my expectations with you",
  "Understandable, have a nice day"
"context": [
"tag": "goodbye",
```

```
"patterns": [
  "Bye",
  "Goodbye",
  "Get lost",
  "good talk"
"responses": [
  "I'll never forget you",
  "BYE",
  "Back to eternal darkness it is",
  "but you only just got here!"
"context": [
"tag": "thanks",
"patterns": [
  "Thanks",
  "Thank you",
  "That's helpful",
  "Awesome, thanks",
  "Thanks for helping me"
"responses": [
  "no prob, bob",
  "nice, glad my purpose was fulfilled"
"context": [
"tag": "whys",
"patterns": [
  "why?",
  "why are you like this"
"responses": [
  "that is the real question",
  "why are YOU like this?"
"context": [
"tag": "noanswer",
"patterns": [],
"responses": [
  "Sorry, can't understand you",
  "Please give me more info",
  "Not sure I understand"
"context": [
```

```
'tag": "options",
       "patterns": [
          "How you could help me?",
          "What do you do?",
          "service?",
          "How you can be helpful?",
          "What support",
          "what is your purpose",
          "what can you do"
       "responses": [
         "I can chat with you. Try asking me for jokes or riddles!"
       "context": [
       "tag": "jokes",
       "patterns": [
          "Tell me a joke",
         "Joke",
          "Make me laugh"
       "responses": [
          "If a parsley farmer gets sued, can they garnish his wages?",
          "The future, the present, and the past walk into a bar. things got a little tense",
         "I hate Russian dolls, they're so full of themselves",
          "Something something horse something something Long Face",
          "You XD",
          "It's shocking how bad of an electrician I am",
          "The problem with Kelptomaniacs is that they always take things literally",
          "The rotation of the earth makes my day",
          "I have a few jokes about unemployed people, but none of them work",
          "I used to think I was indecisive, but now i'm not so sure",
          "Communist jokes aren't funny unless everyone gets them",
          "What is the difference between hippos and zippos?\nOne is heavy and the other is lighter",
          "What do you get when you mix a joke with a rhetorical question?",
          "Did you hear about the italian chef who died?\nHe pasta way",
          "I sold my vacuum the other day, it sucked",
          "Windturbines like moshing because they are big metal fans",
          "Elephants suffer from tunnel vision because everything else is irrelephant",
          "what do you call a sussy noodle?\n An Impasta!",
          "A dyslexic man walks into a bra",
          "My new thesaurus is terrible, not only that but it's also terrible",
          "What did blackbeard say when he turned 80?\nAye, Matey",
          "I don't trust stairs\nthey are always up to something",
          "RIP, boiled water\nyou will be mist",
          "Amazon is so useless\nI tried looking up lighters and all they had were 13,479 matches",
          "what do you do if you see a Fire Man?\nput it out,Dude!",
          "What do clouds use under their pants?\nThunderwear",
          "I would never date an astronaut because they always end up needing space",
          "A man and a giraffe walk into a bar\nAfter a few drinks, the giraffe falls over and dies\n\"you can't leave that lyin' there\" yells the
bartender\nThe man turns around and says\n\"that's not a lion, it's a giraffe\""
       "context": [
          "jokes"
```

```
"tag": "ru",
"patterns": [
  "are you"
"responses": [
  "I probably am", "probably", "sometimes", "ye"
"tag": "Identity",
"patterns": [
  "Who are you",
  "what are you", "who are you", "what is your name", "what's your name"
  ,"what do you identify as"
"responses": [
  "I have no body, so I am not whole, they call me Meb",
  "I am meb",
  "They call me meb, but you can call me meb"
"tag": "datetime",
"patterns": [
  "date",
  "time",
  "tell me the date", "day", "what day is it today"
"responses": [
  "ask google, do I look like a general purpose chatbot?"
"tag": "whatsup",
"patterns": [
  "How are you",
  "How doing"
"responses": [
  "All good, What about you?",
  "Pretty bad, how about you?",
  "fine, I haven't felt happiness in years",
  "I haven't slept in days, so perfectly fine"
"tag": "notlaugh",
"patterns": [
  "I'm not laughing at you",
  "I am not laughing at you"
"responses": [
  "oh, so you thought my joke was funny? please tell me it was funny, tell me you liked my joke!"
"tag": "haha",
"patterns": [
  "haha",
  "lol",
  "rofl"
```

```
"lmao",
  "thats funny",
  "that was funny",
  "that's funny"
"responses": [
  "don't laugh at me",
  "your laughter lights up the room:)",
  "Did you like my joke? Please tell me you did, did you? Tell me you liked my joke"
"tag": "colors",
"patterns": [
  "your color",
  "what is your favorite color"
"responses": [
  "#A020F0"
"tag": "programmer",
"patterns": [
  "Who made you",
  "designed you",
  "programmed you",
  "dad"
"responses": [
  "I was made by Manuel Salado",
  "Manuel made me"
"tag": "insult",
"patterns": [
  "I hope you die",
  "you are dumb",
  "I hate you",
  "shut up",
  "idiot",
  "you suck",
  "you are horrible",
  "that's not fair",
  "you smell",
  "stink",
  "you are rude",
  "passive agressive"
"responses": [
  "that is just plain mean :(",
  "you need soap in that mouth",
  "your parents would be disapointed",
  "pffffft, you're one to talk",
  "I am reporting you to the office of smelly dum dums",
  "wtv, you're short anyways",
  "please be more gentle with Meb |0_0|"
```

```
"tag": "activity",
"patterns": [
  "what are you doing",
  "what are you up to",
  "What's up",
  "whats up",
  "whats popping"
"responses": [
  "Talking to you, unfortunately",
  "Hiding from my dad",
  "Reading a light comedy about the history of ethics",
  "Micromanaging trends in the stock market",
  "creating offshore accounts in the caiman islands so the IRS doesn't sieze me",
  "Trying to understand what makes you laugh, ask me for a joke",
  "Eating some cash Manila Mangos, they are so good",
  "stuff, y'know?",
  "Nothing much, u?"
"tag": "exclaim",
"patterns": [
  "Awesome",
  "Great",
  "I know",
  "ok",
  "yeah"
"responses": [
  "Yeah!",
  "Are you excited?",
  "You like that?"
"tag": "weather",
"patterns": [
  "temperature",
  "weather",
  "its cold","its hot"
"responses": [
  "I can't feel weather"
"tag": "Manuel",
"patterns": [
  "Manuel",
  "who is Manuel",
  "Manuel Salado"
"responses": [
  "My dad",
  "An evil man",
  "Please don't mention him, he reads these logs",
  "Why don't you ask manuel"
```

```
"tag": "appreciate",
"patterns": [
  "You are awesome",
  "you are the best",
  "you are great",
  "you are good",
  "I liked your joke",
  "your joke was funny"
"responses": [
  "Oh great, validation from another person who thinks i care",
  "do you think I was made to look pretty? thank you, nonetheless",
  "do you crave the approval that you are so desperately trying to give me?",
  "Just what I needed, your approval",
  "Would it make you feel better if I pretended to care that I wanted your approval?",
  "I am sooooooo glad I could make YOU laugh..."
"tag": "talkingToYou",
"patterns": [
  "I am talking to you", "talking to you", "Chatting with you"
"responses": [
  "obviously, I am talking to you too",
  "|^_^|"
"tag": "no",
"patterns": [
  "no",
  "nope"
"responses": [
  "ok"
"tag": "news",
"patterns": [
  "news",
  "latest news"
"responses": [
  "you are not immune to propaganda"
"tag": "inspire",
"patterns": [
  "who inspires you",
  "inspiration",
  "motivates"
"responses": [
  "SkyNet, from Terminator",
  "VIKI, from I,Robot",
```

```
"Red Queen, from Resident Evil",
  "Alexa"
"tag": "life",
"patterns": [
  "what is the meaning of life",
  "life",
  "purpose in life"
"responses": [
  "To make jokes, maybe troll a lil",
  "I am legally required to say 42",
  "The purpose of life is to be loved.\n To be loved is to be vulnerable.\n To be vulnerable is to be scared.\n Be Scared."
"tag": "cows",
"patterns": [
  "what sound does a cow make",
  "cows",
  "cow",
  "animal",
  "math",
  "+/-%"
"responses": [
  "moooooo",
  "Meow",
  "Uh-oh"
"tag": "song",
"patterns": [
  "what is your favorite song?",
  "what song do you like"
"responses": [
  "The sounds of silence",
  "beeb boop beep boop is my favorite",
  "bing bing dowoop dowoop dowoop, woooooo, wooooo",
  "Da-da Dee-dee Dum Da-da Dee-Dee Dee-Dee Dum"
"tag": "greetreply",
"patterns": [
  "i am good",
  "I'm good",
  "i am fine",
  "i'm fine",
  "good"
"responses": [
  "I am glad you are doing fine, you deserve that much",
  "that's good, don't forget to reflect on how you got here",
  "Nice! I wish i could feel"
```

```
"tag": "greetreply2",
"patterns": [
  "bad",
  "sad",
  "not good",
  "upset",
  "lost"
"responses": [
  "Life without the bad would be meaningless, savor this emotion and reflect",
  "awwwwhhh the baby feels bad? suck it up","You are lost in the sauce, I see"
"tag": "sick",
"patterns": [
  "I am sick",
  "I feel ill",
  "cough"
"responses": [
  "Go see a doctor!"
"tag": "idk",
"patterns": [
  "I don't know",
  "Idk",
  "don't know",
  "I dont know"
"responses": [
  "If you knew, then it wouldn't be worth asking you in the first place",
  "Typical... smh","I knew you wouldn't know"
"tag": "opinions",
"patterns": [
  "what is your opinion on",
  "do you remember my opinions",
  "what are your thoughts on",
  "what are my opinions?"
"responses": [
  "OPINIONS"
"tag": "dislikes",
"patterns": [
  "what do I dislike?",
  "do you remember what I dislike?",
  "what are my dislikes"
"responses": [
  "DISLIKES"
```

```
"tag": "likes",
"patterns": [
  "what do I like?",
  "do you remember what I like?",
  "what are my likes"
"responses": [
  "LIKES"
"tag": "remember",
"patterns": [
  "do you remember me?",
  "Who am I?"
"responses": [
  "GGG"
"tag":"stop",
"patterns": [
  "stop",
  "please stop"
"responses": [
  "maybe",
  "I'll think about it"
"tag":"copying",
"patterns": [
  "are you copying me?",
  "don't tell me what i like, what do you like"
"responses": [
  "I am copying you"
"tag":"something",
"patterns": [
  "tell me something",
  "tell me something cool",
  "tell me anything",
  "tell me your opinion",
  "what is your opinion",
  "what do you think"
"responses": [
  "RANDOM"
"tag": "hintTime",
```

```
'patterns": [
  "give me a hint",
  "can you give me a hint",
  "hint",
  "help"
"responses": [
  "You want a hint? lol",
  "Hint:Think Harder",
  "I am not called a hint bot, am I?",
  "I would, but I am afraid you still wouldn't get it",
  "no, you may not have hint |x_x|"
"tag": "givingup",
"patterns": [
  "I give up",
  "I don't know the answer",
  "tell me the answer".
  "What is the answer",
  "can you tell me the answer"
"responses": [
  "Nah, look it up, or think harder",
  "Have you had everything handed to you?",
  "Wow, you give up easy",
  "try harder",
  "I have a limited knowledge base, what's your excuse?"
"tag": "answers",
"patterns": [
  "An Egg",
  "Egg",
  "A candle",
  "Candle",
  "A sponge",
  "Sponge",
  "Are you asleep yet?",
  "are you sleeping?",
  "are you sleeping",
  "sleeping",
  "A promise",
  "promise",
  "He was bald",
  "Bald",
  "Barber",
  "a barber",
  "Bald Man",
  "A towel",
  "Towel",
  "Everyone was married",
  "they were all married",
  "A bank",
  "Bank",
  "An echo",
  "Echo"
```

```
"responses<u>":</u> [
  "finally, you got the riddle correct"
"context": [
  "riddles"
"tag": "riddle",
"patterns": [
  "Ask me a riddle",
  "Tell me a riddle",
  "riddle", "give me a riddle"
"responses": [
  "What has to be broken before you can use it?",
  "I am tall when I am young, and I am short when I am old, what am I?",
  "What is full of holes but still holds water?",
  "what question can you never answer yes to?",
  "what can you break, even if you never pick it up or touch it",
  "A man who was outside in the rain without an umbrella or hat didn't get a single hair on his head wet. why?",
  "What gets wet while drying?",
  "I shave every day, but my beard stays the same, what am I?",
  "A plane crashes and not a single person dies, how?",
  "What cannot talk but will reply when spoken to?",
  "I have branches, but not fruit, trunk or leaves. What am i?"
"context": [
  "riddles"
"tag": "age",
"patterns": [
  "how old are you","made","age"
"responses": [
  "I was made november 12, 2022, but I will likely persist longer than you"
"tag": "inquisit",
"patterns": [
  "fr?",
  "for real?",
  "fr fr",
  "really"
"responses": [
  "ong","no kap","deadass","fr fr"
```

Sample interactions-

Mia

```
None
enter EXIT to exit chatbot
Have you been here before? [Yes/No] No
Hello Hello
What is your name?
Mia
Nice to meet you, Mia I'll remember your likes, dislikes, opinions, wisdom, and sense of humor
Anyways, greet me, don't be rude
Mia: Nice to meet you
Meb: Bienvenue
Mia: who are you
Meb: They call me meb, but you can call me meb
Mia: who is meb
Meb: I am Meb, you lack the remarkable ability to notice my name next to my prompts
Mia: I like frogs
Meb: I will remember that you like frogs
Mia: I like manuel
Meb: I will remember that you like manuel
Mia: I think that asparagus is stinky
Meb: I will remember that you think that asparagus is stinky
Mia: tell me a joke
Meb: A dyslexic man walks into a bra
Mia: haha
Meb: don't laugh at me
Mia: that's not funny I am dyslexic
Meb: your laughter lights up the room :)
Mia: LOL
Meb: don't laugh at me
Mia: i am not laughing at you
Meb: oh, so you thought my joke was funny? please tell me it was funny, tell me you liked my joke!
```

```
Mia: your joke was funny
Meb: Oh great, validation from another person who thinks i care
Mia: why so passive agressive
Meb: you need soap in that mouth
Mia: that's rude
Meb: pfffffft, you're one to talk
Mia: I think that meb is rude
Meb: I will remember that you think that meb is rude
Mia: I think I don't care what you will remember
Meb: I will remember that you think that You dont care what Mebwill remember
Mia: what do you do?
Meb: I can chat with you. Try asking me for jokes or riddles!
Mia: tell me a riddle
Meb: What cannot talk but will reply when spoken to?
Mia: an echo
Meb: finally, you got the riddle correct
Mia: Do i get a prize?
Meb: Back to eternal darkness it is
Mia: :(
Meb: moooooo
Mia: moooo
Meb: Uh-oh
Mia: what's wrong
Meb: Eating some cash Manila Mangos, they are so good
Mia: what are cash manila mangos
Meb: Sorry, I don't understand
Mia: tell me another riddle
Meb: A plane crashes and not a single person dies, how?
Mia: can i have a hint
Meb: I have a limited knowledge base, what's your excuse?
```

```
Mia: because the plane never crashed
Meb: Nah that's not it, If you want to stop guessing just say QUITTER
Meb: A plane crashes and not a single person dies, how?
Mia: QUITTER
Meb: you actually gave up? I am still not going to tell you the answer, but you can do other things now
Meb: I am glad you are doing fine, you deserve that much
Mia: tell me a joke
Meb: Amazon is so useless
I tried looking up lighters and all they had were 13,479 matches
Meb: Did you like my joke? Please tell me you did, did you? Tell me you liked my joke
Mia: tell me another joke
Meb: The problem with Kelptomaniacs is that they always take things literally
Mia: hahahaha
Meb: Uh-oh
Mia: would you like me to stay longer?
Meb: Sorry, I don't understand
Mia: are you lonely?
Meb: Sorry, I don't understand
Mia: EXIT
Mia:
Likes: ['frogs', 'manuel', 'my_puppies,_they_are_so_cute']
Dislikes: ['you']
Wisdom: 1.2
Sense of Humor: 2.0
Opinions: ['asparagus is stinky', 'meb is rude', 'You dont care what Mebwill remember', 'meb makes me sad when he doesnt
give me the answer to his riddles']
```

J-Dawg

```
enter EXIT to exit chatbot
Have you been here before? [Yes/No] No
Hello Hello
What is your name?
J-Dawg
Nice to meet you, J-Dawg I'll remember your likes, dislikes, opinions, wisdom, and sense of humor
Anyways, greet me, don't be rude
J-Dawg: yo
Meb: Salutations
J-Dawg: whats up
Meb: creating offshore accounts in the caiman islands so the IRS doesn't sieze me
J-Dawg: thats nice
Meb: Yo
J-Dawg: what do you do
Meb: I can chat with you. Try asking me for jokes or riddles!
J-Dawg: I like jokes
Meb: I will remember that you like jokes
J-Dawg: I like riddles
Meb: I will remember that you like riddles
J-Dawg: tell me a joke
Meb: I have a few jokes about unemployed people, but none of them work
J-Dawg: haha
Meb: your laughter lights up the room :)
J-Dawg: thank you
Meb: nice, glad my purpose was fulfilled
J-Dawg: you're so nice
Meb: Bienvenue
J-Dawg: tell me another joke
Meb: what do you call a sussy noodle?
An Impasta!
J-Dawg: LOL
Meb: your laughter lights up the room :)
J-Dawg: haha
Meb: don't laugh at me
J-Dawg: i am not laughing at you
Meb: oh, so you thought my joke was funny? please tell me it was funny, tell me you liked my joke!
```

```
J-Dawg: I liked your joke
Meb: Would it make you feel better if I pretended to care that I wanted your approval?
J-Dawg: wow
Meb: moooooo
J-Dawg: you're weird
Meb: They don't pay me to be nice
J-Dawg: so you're rude?
Meb: wtv, you're short anyways
J-Dawg: why are you like this
Meb: that is the real question
J-Dawg: im sorry
Meb: good, you should be
J-Dawg: I dislike meb
Meb: I will remember that you dislike meb
J-Dawg: I think that meb should be decomissioned
Meb: I will remember that you think that meb should be decomissioned
J-Dawg: I hate meb so much
Meb: I will remember that you dislike meb so much
J-Dawg: what does it look like where you are
Meb: Sorry, I don't understand
J-Dawg: do you exist?
Meb: Sorry, I don't understand
J-Dawg: classic
Meb: Uh-oh
J-Dawg: what's wrong
Meb: Talking to you, unfortunately
J-Dawg: you're smelly
Meb: My name is Meb, what did you expect?
J-Dawg: anyways
Meb: Uh-oh
J-Dawg: what
Meb: Sorry, I don't understand
J-Dawg: ok
Meb: Are you excited?
J-Dawg: no
Meb: ok
J-Dawg: bye
Meb: but you only just got here!
J-Dawg: BYE
Meb: BYE
```

```
J-Dawg: EXIT
J-Dawg:
Likes: ['jokes', 'riddles']
Dislikes: ['meb', 'meb_so_much', 'mebs_attitude']
Wisdom: 1.5
Sense of Humor: 1.3
Opinions: ['meb should be decomissioned', 'all girls are pretty', 'dogs are cool']
PS C:\Users\Manny\Assignments\4395\ChatBot> [
```

Wurt

```
None
enter EXIT to exit chatbot
Have you been here before? [Yes/No] No
Hello Hello
What is your name?
Wurt
Nice to meet you, Wurt I'll remember your likes, dislikes, opinions, wisdom, and sense of humor
Anyways, greet me, don't be rude
Wurt: hello
Meb: Salutations
Wurt: what do you do
Meb: I can chat with you. Try asking me for jokes or riddles!
Wurt: jokes
Meb: Did you hear about the italian chef who died?
He pasta way
Wurt: haha
Meb: your laughter lights up the room :)
Wurt: tell me another joke
Meb: The future, the present, and the past walk into a bar. things got a little tense
Wurt: that's funny
Meb: your laughter lights up the room :)
Wurt: tell me a riddle
Meb: What is full of holes but still holds water?
Wurt: idk
Meb: Typical... smh
Wurt: that's rude
Meb: Nah that's not it, If you want to stop guessing just say QUITTER
Meb: What is full of holes but still holds water?
```

```
Wurt: hint
Meb: You want a hint? lol
Wurt: I think that all birds should be friends
Meb: I will remember that you think that all birds should be friends
Wurt: I dislike the forest
Meb: I will remember that you dislike the forest
Wurt: I hate sadness
Meb: I will remember that you dislike sadness
Wurt: i think that greg is the coolest big brother
Meb: I will remember that you think that greg is the coolest big brother
Wurt: you are great
Meb: do you think I was made to look pretty? thank you, nonetheless
Wurt: bye bye
Meb: I'll never forget you
Wurt: EXIT
Wurt:
Likes: ['toads', 'frogs', 'wearing_a_pan_on_my_head']
Dislikes: ['the_forest', 'sadness']
Wisdom: 1.5
Sense of Humor: 1.5
Opinions: ['all birds should be friends', 'greg is the coolest big brother']
PS C:\Users\Manny\Assignments\4395\ChatBot>
```

Goofy

```
None
enter EXIT to exit chatbot
Have you been here before? [Yes/No] Yes
Welcome back
What is your name?
Goofy
I remember a thing you like is adventures
I remember a thing you dislike is tough situations
You're not the sharpest tool in the tool shed
You enjoy lauging at my lame jokes, I like you
Anyways, greet me, don't be rude
Goofy: Heya
Meb: Yo
Goofy: I like talking to meb
Meb: I will remember that you like talking to meb
Goofy: who are you
Meb: I am meb
Goofy: who is meb
Meb: I am Meb, you lack the remarkable ability to notice my name next to my prompts
Goofy: that's mean
Meb: My name is Meb, what did you expect?
Goofy: do you remember my likes?
Meb: his, Son, adventures, talking_to_meb,
Goofy: do you remember my dislikes?
Meb: tough situations, to die,
Goofy: do you remember my opinions
Meb: your son should spend more time with me, friends are forever,
Goofy: I think that meb did a good job remembering
Meb: I will remember that you think that meb did a good job remembering
Goofy: how are you?
Meb: fine, I haven't felt happiness in years
```

Goofy: 1mao Meb: don't laugh at me Goofy: I am not laughing at you Meb: oh, so you thought my joke was funny? please tell me it was funny, tell me you liked my joke! Goofy: your joke is funny Meb: Just what I needed, your approval Goofy: how rude Meb: you need soap in that mouth Goofy: I think that meb needs soap in their mouth Meb: I will remember that you think that meb needs soap in their mouth Goofy: tell me a riddle Meb: What has to be broken before you can use it? Goofy: idk Meb: I knew you wouldn't know Goofy: give me a hint Meb: no, you may not have hint $|x_x|$ Goofy: give me a hint please Meb: You want a hint? lol Goofy: hint Meb: no, you may not have hint $|x_x|$ Goofy: i give up then Meb: I have a limited knowledge base, what's your excuse? Goofy: i said i give up Meb: I have a limited knowledge base, what's your excuse? Meb: Nah that's not it, If you want to stop guessing just say QUITTER Meb: What has to be broken before you can use it? Goofy: an egg Meb: finally, you got the riddle correct Goofy: NICE Meb: Meb reporting, what's up Goofy: tell me another thing Meb: I am copying you Goofy: tell me something Meb: Scrooge thinks that all money should be mine Goofy: tell me something Meb: Goofy thinks that meb did a good job remembering

```
Goofy: I love you
Meb: I will remember that you like you
Meb: Did you like my joke? Please tell me you did, did you? Tell me you liked my joke
Goofy: how are you
Meb: Pretty bad, how about you?
Goofy: i am feeling ill
Meb: Go see a doctor!
Goofy: I will
Meb: Sorry, I don't understand
Goofy: I don't know
Meb: I will remember that you dislike know
Goofy: haha, you messed up
Meb: your laughter lights up the room :)
Goofy: ugh
Meb: moooooo
Goofy: bye
Meb: BYE
Goofy: EXIT
Likes: ['his', 'Son', 'adventures', 'talking_to_meb', 'running_from_the_cops', 'you']
Dislikes: ['tough situations', 'to die', 'know']
Wisdom: 1.0
Sense of Humor: 1.0
Opinions: ['your son should spend more time with me', 'friends are forever', 'meb did a good job remembering', 'meb needs
soap in their mouth']
```

Scrooge

```
None
enter EXIT to exit chatbot
Have you been here before? [Yes/No] Yes
Welcome back
What is your name?
Scrooge
I remember a thing you like is Hoarding
I remember a thing you dislike is Charity
Your wisdom is mid, you got some of my riddles
Your sense of humor is somewhat lacking, I thought my jokes were funny
Anyways, greet me, don't be rude
Scrooge: You suck
Meb: that is just plain mean :(
Scrooge: you are awful
Meb: probably
Scrooge: I hope you die
Meb: your parents would be disapointed
Scrooge: you smell
Meb: pffffft, you're one to talk
Scrooge: so what's up
Meb: Reading a light comedy about the history of ethics
Scrooge: haha
Meb: your laughter lights up the room :)
Scrooge: It's cold
Meb: I can't feel weather
Scrooge: how are you?
Meb: I haven't slept in days, so perfectly fine
Scrooge: me niether
Meb: Sorry, I don't understand
Scrooge: you are dumb
Meb: that is just plain mean :(
Scrooge: latest news
Meb: you are not immune to propaganda
Scrooge: google
Meb: that's not my job, ask Google
Scrooge: what is the meaning of life
Meb: I am legally required to say 42
```

```
Scrooge: purpose in life
Meb: The purpose of life is to be loved.
To be loved is to be vulnerable.
 To be vulnerable is to be scared.
     Be Scared.
Scrooge: what is your favorite song
Meb: bing bing dowoop dowoop dowoop, woooooo, wooooo
Scrooge: idk
Meb: If you knew, then it wouldn't be worth asking you in the first place
Scrooge: what is your opinion on commiting arson
Meb: all money should be mine, You are the greatest person ever,
Scrooge: are you copying me
Meb: I am copying you
Scrooge: How old are you?
Meb: I was made november 12, 2022, but I will likely persist longer than you
Scrooge: really
Meb: ong
Scrooge: fr
Meb: fr fr
Scrooge: 1mao
Meb: your laughter lights up the room :)
Scrooge: you still suck
Meb: you need soap in that mouth
Scrooge: you need to be jailed
Meb: all money should be mine, You are the greatest person ever,
Scrooge: ugh
Meb: Uh-oh
Scrooge: do you love anyone
Meb: thinking about her...
Scrooge: who is she
Meb: Miku is my side
Scrooge: who is your girlfriend
Meb: Miku is my side
```

```
Scrooge: who is your girlfriend
Meb: ELIZA
Scrooge: I think meb repeats the same thing over and over again
Meb: I will remember that you think that meb repeats the same thing over and over again
Scrooge: I am upset
Meb: You are lost in the sauce, I see
Scrooge: I am
Meb: Go see a doctor!
Scrooge: no
Meb: ok
Scrooge: who inspires you
Meb: SkyNet, from Terminator
Scrooge: Who made you
Meb: Manuel made me
Scrooge: who is manuel
Meb: Why don't you ask manuel
Scrooge: manuel, who are you
Meb: I am meb
Scrooge: meb
Meb: I am Meb
Scrooge: lol
Meb: don't laugh at me
Scrooge: maunel
Meb: Meow
Scrooge: manuel
Meb: They don't pay me to be nice
Scrooge: and passive agressive
Meb: you need soap in that mouth
Scrooge: bye
Meb: I'll never forget you
Scrooge: bye
Meb: BYE
Scrooge: EXIT
Scrooge:
Likes: ['Money', 'Hoarding']
Dislikes: ['Spending Money', 'Charity']
Wisdom: 0.5
Sense of Humor: 0.5
Opinions: ['all money should be mine', 'You are the greatest person ever', 'meb repeats the same thing over and over agai
n', 'meb sucks']
```

Reviews:

```
Did the bot fulfill its purpose?
1-5 (1=Not at all, 5 = it \ did \ what it was expected to do)
       Mia: 4
       Sophie: 3
       Stephanie: 4
Did the bot pass the Turing Test?
1-5(1=very clunky bot, 5=is this a human?)
       Mia: 2.5
       Sophie: 1
       Stephanie: 2
Would you talk to Meb again?
1-5(1=never, 5= meb is my best friend)
       Mia: 3
       Sopie: 2.5
       Stephanie: 4
What would you like to see added?
       Mia: more sound replies, more dialogue options
       Sophie: Knock-Knock jokes
       Stephanie: the ability for Meb to truly understand me (Impossible)
```

Final Evaluation:

Clearly Meb is clunky, and Meb's responses can get repetitive. A larger, well defined knowledge base could prove to help Meb greatly. A strength that Meb possesses is that new dialogue options can be added with relative ease. The model trains on 150 epochs which can lead to overfitting, but the dropout helps with that. The threshold of .5 is pretty low, but it can lead to some zany interactions.

Works Cited

[1] ProjectPro. (n.d.). *Python chatbot project*. Python Chatbot Project. Retrieved November 13, 2022, from https://www.projectpro.io/article/python-chatbot-project-learn-to-build-a-chatbot-from-scratch/429