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CART 451 2232-AA

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CART 451 EXERCISE 1

PART A: ACCESS AND IMPORT THE DATA

Dataset: **3K Conversations Dataset for ChatBot**

This is a dataset that is used for the development of customer-service chatbots. Its main purpose is to teach AI how to engage in human-like conversations. The dataset has over 3000 entries and contains both casual and formal queries, as well as interactions related to interviews, customer relations and social media conversations. I chose this dataset due to having a passive interest in chatbot behaviour and I am curious to find out the inner workings of these machines. In addition, the questions and answers could serve as inspiration for my final project. So far, no immediate errors have occurred after importing the dataset to the Mongodb database.

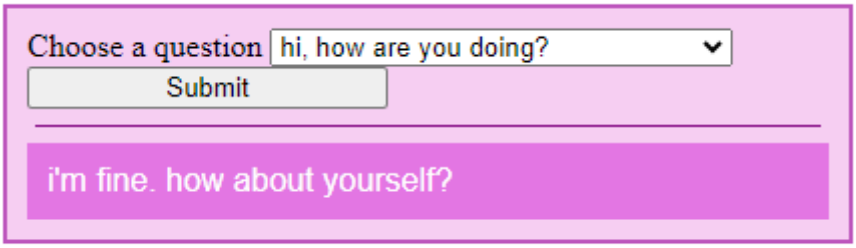
PART B: WRITE SOME MONGO DB QUERIES

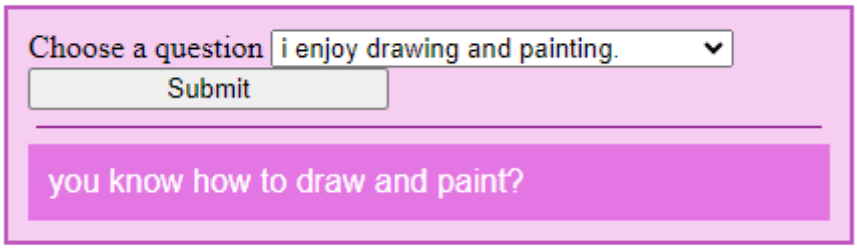
1. As a test, I wrote one of the first queries in the database – that being the question *"hi, how are you doing?"*. The response to the question was the predictably appropriate *"i'm fine. how about yourself?"*. The response was simple and inquisitive – there is an inviting tone that asks for a more engaging conversation, a quality expected from a chatbot.

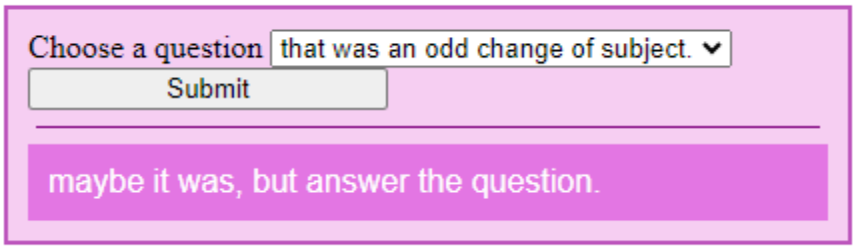
2. The second query involved asking the question *"how is the weather?"*. This query yielded a *null* response from the database, meaning that this chatbot only answers to very specific questions. This need for the user to be pedantic with their queries hurts the versatility of the database.
3. The third question asked was "i enjoy drawing and painting.", with the response being "you know how to draw and paint?". The response is fine and asks the user to elaborate more on their hobby, but I can't help but feel that it's a little half-baked. Usually, someone saying that they enjoy doing something implies that they already know how to do said activity. So, I feel that a more appropriate response would be something like: "what kind of subjects do you like to draw and paint?".
4. The fourth query is the question "you look really nice today. " with the answer "thank you. i just got this outfit the other day.". I find this answer amusing due to it anthropomorphizing the chatbot into something resembling a human. It is quite a bizarre scenario to ask a disembodied machine about its appearance, since it is technically only a "voice".
5. The fifth question was "that was an odd change of subject." And the response was "maybe it was, but answer the question.". The answer comes across as a little aggressive and seems to appear in a scenario where the conversation becomes serious. Maybe this response could come from a more advanced AI that is used to talking to a specific user; it definitely sounds more engaged than the other answers.

This dataset is a little flawed due to mostly accepting specific responses, but could be programmed to allow simple words or sentences to mean specific questions. The way the responses are written makes it seem like the chatbot has a "life" of its own: it has responses related to its appearance and the "people" it has met, as well as what kinds of movies and music genres it likes. Combine this with the sometimes bizarre and aggressive responses it gives and you can make a sort of "virtual friend" program that exists to incite long discussions.

PART C: EXPRESS + MONGO







These three queries represent the question/answer dynamic that the chatbot dataset provides. Due to the nature of the dataset, specific strings had to be used via a drop-down menu in order to for responses to appear. Using code from weeks 4 and 5, as well as help from Sabine, a system was implemented where a client's question could be processed through MongoDB's server and the latter would churn out the appropriate response. Once the response was given back to the client, the response div's innerHTML would change to the appropriate answer.