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Project Proposal

Soul Train Riders AI Customer Service Bot

Intended use of the system:

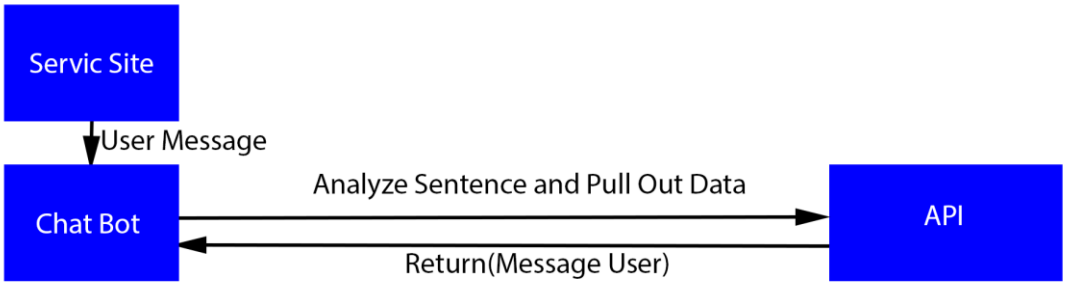
Our project is to design and develop an AI chatbot for The Hartford's customer service site. This bot is intended for use by customers of The Hartford who wish to make general inquires (such as asking for policy information) or conduct changes to their insurance policies, all of which will be done over text, no verbal commands. Examples of user stories include adding/removing vehicles to/from an auto policy, asking about payment plans and how to change them, and cancelling or renewing policies.

Overall Functionality:

A chatbot generally exists in the customer service site, and a tab (similar to a Facebook message tab) will be present labeled "ask for help" which the customer can click on. Clicking this tab will launch the chatbot, which will greet the user, and then the customer can begin entering questions. For simple inquiries ("How much is my bill?") The chatbot will return the requested information or useful links to provide quick assistance. For more complex processes (such as adding a vehicle) the bot would normally call upon The Hartford's backend services to perform automated policy operations. These actions create an easy and user-friendly method for acquiring information and making changes. However, for the scope of this project, we will not be building these policy integration features. Instead, the team will develop a "dummy" api. This api is a series of functions that mimic the necessary backend calls and will take the required information from the chatbot to output a boolean response, determining whether a backend call would have been successful. As such our chatbot may not actually return the

desired function or information, rather it will use as many AI tools as necessary to automate the entire process and return its success. The focus here is not the backend policy, rather the ability to automate these responses with minimal user interaction.

Main Components of the System:



The focus of this project is to explore the potential uses of AI development. As a result, the team is to develop chatbot techniques and features and ignore things like security, integration, and interface (at first, the interface aspect may change). The general components of this project include following the NLP development method to generate an AI chatbot using technologies such as Google's DialogFlow as a reference, already existing API's to help support the function of our chatbot, and our own API that we will create ourselves to mimic The Hartford's backend API to avoid integration issues. Among all of the user stories, all of these attributes are present at least once and many of them are repeated:

- Understand natural language as customers may be more comfortable doing so making the experience more convenient for them

- Acceptance of data elements so that the AI can make the appropriate decision based off that information, whether that be to drive the conversation or to contact the API with the received information
- As things are being said to the chatbot, the chatbot should be learning from the customer and drive the conversation in such a way that seems to predict what the customer desires from the system.
- Work with the backend API to navigate the customer to other pages so that they may complete their inquiry
- Confirm that specific data elements have been received (for our purposes, we send back a true or false statement depending on if the information received has been stored versus reality where the chatbot would take that information and perform an action such as quoting an auto policy for a customer)