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SERVICE BASED CHATBOT

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Abstract: People interact with systems more and more through voice assistants and chatbots. The days of solely engaging with a service through a keyboard are over. These new modes of user interaction are aided in part by This research will investigate how advancements in Artificial Intelligence and Machine Learning technology. are being used to improve many services. In particular it will look at the development of chatbots as a channel for information distribution. This project aimed to implement a web-based chatbot to assist with online banking, using tools that expose artificial intelligence methods such as natural language understanding. Allowing users to interact with the chatbot using natural language input and to train the chatbot using appropriate methods so it will be able to generate a response. The chatbot will allow users to view all their personal banking information all from within the chatbot In an industry with low user satisfaction rates and limited technology to increase accessibility. It is clear the chatbot overcomes the challenges banks face to increase the use of their services and gain a competitive edge over leading competitors.

Index Terms – Machine Learning, Artificial Intelligence, NLP

I.INTRODUCTION

I. Chatbots are a class of intelligent, conversational systems that works by natural language input that can be in the form of text, voice, or both. They provide conversational output in response, and are sometimes used for task execution, We will create a chatbot interacting via voice input and voice output like popular personal assistant apps like Siri and Alexa in python. Our Bot uses an offline backend corpus as a knowledge base which user can change by merely tweaking the backend corpus by adding their personalization to answers from Bot. It is a simple command-line implementation for beginners, but to make it look interesting will be adding things like emotion detection, greeting function, and a color pallet to distinguish between questions and answers.

I.PROBLEM DEFINITION

Here keywords include Backend corpus serving as Bot's knowledge base. User initializing verbal input via a microphone Conversation of input query information into respective text form. Classification of input type using Naïve Bayes Between question or emotion type. Processing of input signal using NLP and computing answer from the corpus. Computing the best possible answer via TF-IDF score between question and answer for corpus. Conversion of best answer into Voice output. Downloading and installing packages, we will be installing python libraries nltk, NumPy, gTTs, scit-learn and, Speechrcognition using pip. Rest we will be installing mpg123, portaudio, for accessing the microphone from the system.

II. LITRATUR SURVEY

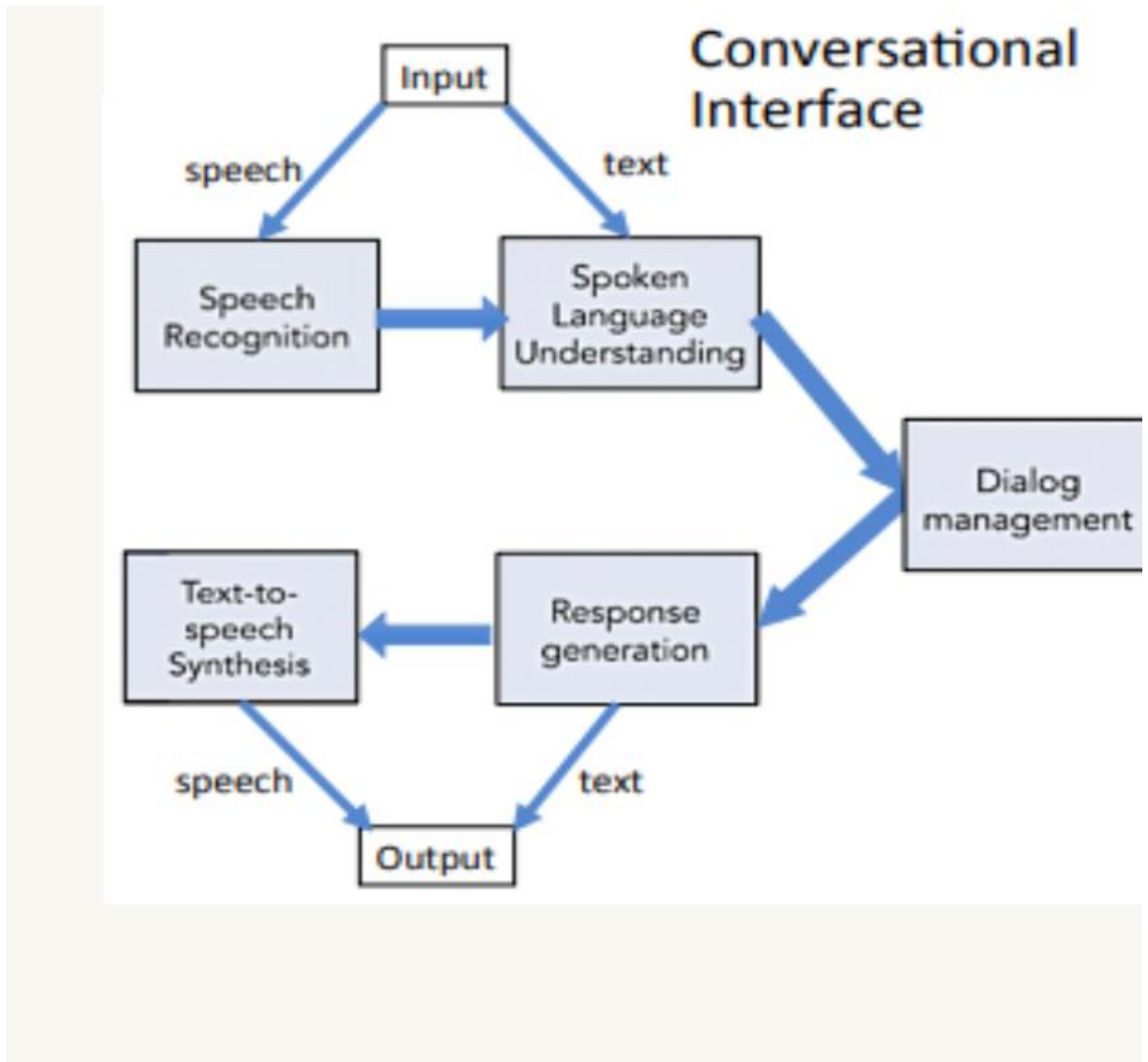
A literature review is a survey of scholarly sources (such as books, journal articles, and theses) related to a specific topic or research question. It is often written as part of a thesis, dissertation, or research paper, in order to situate your work in relation to existing knowledge. It establishes the authors' in-depth understanding and knowledge of their field subject. It gives the background of the research. Portrays the scientific manuscript plan of examining the research result. Illuminates on how the knowledge has changed within the field.

Year of Publication	Author	Publication Paper/Conference	Project Title	Application
Aug 2018	Akash Balachandar, Anusha D Kulkarni	International Research Journal of Engineering and Technology (IRJET), vol. 5, Issue:	Recruitment Chatbots	Using simply a chatbot can be a solution to this problem. Recruiters can use this in day-to-day life to automate time-consuming tasks [
May 2020	Ravi, R.	(ICACCI) (pp. 2193-2195). IEEE [5].	Intelligent Chatbot for Easy Web-Analytics Insights.	The chatbot is built using Artificial Intelligence Markup Language contain analytics
June 2021	<u>Sarosa, M., Junus.m</u>	International Journal of Emerging Technologies in Learning(<u>ijet</u>), 13(02)	Classification Technique of Interviewer-Bot Result using Naïve Bayes an Phrase Reinforcement Algorithms	In this paper authors have classified the outcomes of a job interview among the <u>the</u> interviewer-bot and user by using Naïve Bayes algorithm.

3 PROPOSED SYSTEM

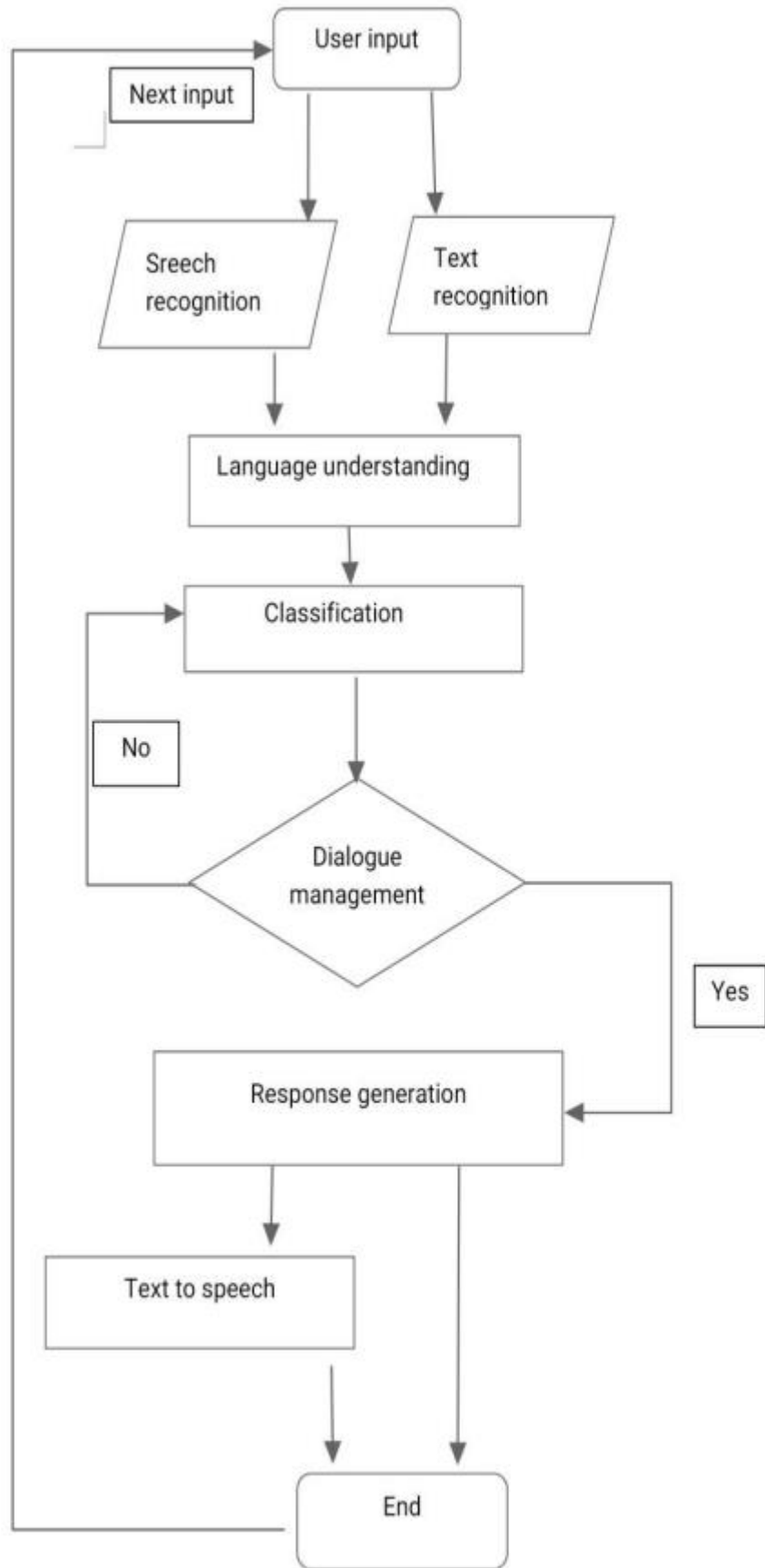
We will be installing python libraries nltk, NumPy, GTTs (google text-to-speech), scikitlearn and, Speech Recognition using pip. Rest, we will be installing mpg123, portaudio, for accessing the microphone from the system. We have to Call Libraries, right after we done with installing the needful dependencies, then we be will start with our script from the import section. Also, note that nltk. download command will download the mentioned corpora on the first run, after which its recommended to comment these “. download” commands; otherwise, it will repeatedly search for mentioned corpora adding to run time. We will write a function to classify user input, which uses nps_chat corpora and naive Bayes classifier to categorize the input type by classifying them into listed categories. It will use speech recognition for registering user input using the microphone. Converting it into text form, searching for its answers from the processed Corpus, and returning the output using text-to-speech. It will continue taking user input and answering until the user says Bye/Goodbye

3.1 BLOCK DIAGRAM



3.2 FLOWCHART

A Flowchart is a visual representation sequence of steps and decision to perform a process. Each step within a process is denoted within diagram shape. Steps are linked by connected line and direction arrows. This allows anyone to view flowchart and logically follow the steps from start to end.



IV. CONCLUSION

So now we know how to initialize verbal and textual input query information then classify the information then process the relevant output through computing answer from are corpus and then convert it into voice or simply text format. So, basically we have learned about sensors NAIVE BYERS, NLU, GTTS API, PORTAUDIO, SPEECH RECOGNITION etc works, concept of chat bot Also created the ppt, block diagram, and research about the technical papers. And one most important thing how to work in a team.

III. ACKNOWLEDGMENT

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