CHATBOT FOR

DESKTOP CONTROLLER

Submitted in partial fulfillment of the requirements

for the award of

Bachelor of Engineering degree in Computer Science and Engineering

By

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

SCHOOL OF COMPUTING

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INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
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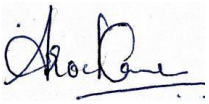
BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of **Mohith reddy Seelam(39110635)** who carried out the Project Phase-1 entitled **"CHAT-BOT FOR SYSTEM CONTROLLER"** under my supervision from June 2022 to November 2022.



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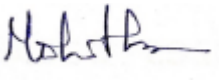
Submitted for Viva voce Examination held on_____

InternalExaminer **ExternalExaminer**

DECLARATION

I, **Mohith Reddy Seelam (Reg.No- 39110635),** hereby declare that the Project Phase-1 Report entitled **CHAT-BOT FOR SYSTEM CONTROLLER"** done by me under the guidance of **Dr. Aroul Canessane R, M.E.,Ph.D** is submitted in partial fulfillment of the requirements for the award of Bachelor of Engineering degree in **Computer Science and Engineering**.



DATE:
PLACE:Chennai **SIGNATURE OF THECANDIDATE**

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ABSTRACT

Chatbot is another new way for people to interact with a computer system. Traditionally, to get a reply by a software program involved using a search engine. Humans simply ask questions to the chatbot to get answered by the chatbot in a most efficient way. This Paper Builds a general purpose that makes conversations between user and computer. Initially the Chatbot has Given all instructions Related to your Computer. If User doesn't Know How to Work with a computer he can ask any related thing about it and system will respond accordingly to your instruction, if the user provide wrong instruction It reply's wrong query please provide correct query. The Bot we are trying to build is related to computers i.e. Windows OS version 10 and Above

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

A chatbot is a software that can perform its conversation with a user in natural language through message applications, mobile apps or through telephone. A chatbot is described as one of the most advanced and promising interaction between humans and machines. Chatbot technology is advanced such that it recognizes questions through voice and answers it accordingly. A chat robot which can communicate with a person, thus a chat bot is also called a chatter bot. A computer program that simulates human conversation, or chat, through machine learning. Typically, a chat bot will communicate with a real person, chat bots are used to automate customer services and reduce manual tedious tasks performed by employees so they can spend their time more productively on higher priority tasks. Chat bot technology initially began in the year 1960's to determine whether a chat bot could be portrayed as a human. Throughout the 1980's there was an elevated amount research carried out on natural language interface which leads to the development of sophisticated chat bot architecture such as A.L.I.C.E (Artificial Linguistic Computer Entity). This chat bot architecture is one of the earlier chat bot developed in 1995 by Dr. Wallace which is now open source. This chat bot is we can create through interaction as it will learn from pervious interactions to create its knowledge base.1.2 Data Minin

CHAPTER 2

LITERATURE SURVEY

Data mining is the method of identifying a similar patterns in huge data sets. In computer science and statistics where data mining is a part of it. Data mining aims to extract the useful information from a data set and transforms the information into understandable and unique structure for further use. For example, the data mining step might identify multiple groups in the data, which can then be used to obtain more accurate prediction results by a decision support system, Our project which is voice recognition chatbot is a model which is a good conversational chatbot with whom the user can interact in very simple and easy way as it is a retrieval based model chatbot where the chatbot model pick a response from a collection of responses based on the given query. This bot responses from a finite set of predefined responses or pre existing information.

Data mining is the process of discovering patterns in large datasets involving methods at the intersectionofmachinelearning,statistics,anddatabasesystems . Data mining is an interdisciplinary subfield of computer science with an overall goal to extract information (with intelligent methods) from a data set and transform the information into a comprehensible structure for further use. The knowledge or extracted information can be used to predict results in near future based on discovered patterns. Data mining is the analysis step of the "knowledge discovery in databases" process, or KDD. Aside from the raw analysis step, it also involves database and data management aspects, data pre-processing, model and inference considerations, interestingness metrics, complexity considerations, post-processing of discovered structures, visualization, and online updating.

2.1 INFERENCES FROM LITREATURE SURVEY

2.1.1 Retrieval-based model

The Retrieval-based models based on the query generated, from a group of responses it chooses a appropriate response. We don’t need to worry about grammar and spelling mistakes because retrieval model does not generate new answers. Generally, The Retrieval-based models pick a response from a collection of responses based on the given query. Retrieval based bots work on the principle of directed flows or graphs. From a finite set of predefined responses the chatbot is trained to take the best response among the generated responses. The responses generated in Retrieval model are entered manually, or based on a idea of pre-existing information. Retrieval based bots are the most common types of chat bots that you see today. We can decide the tone of the bot, and design the experience.

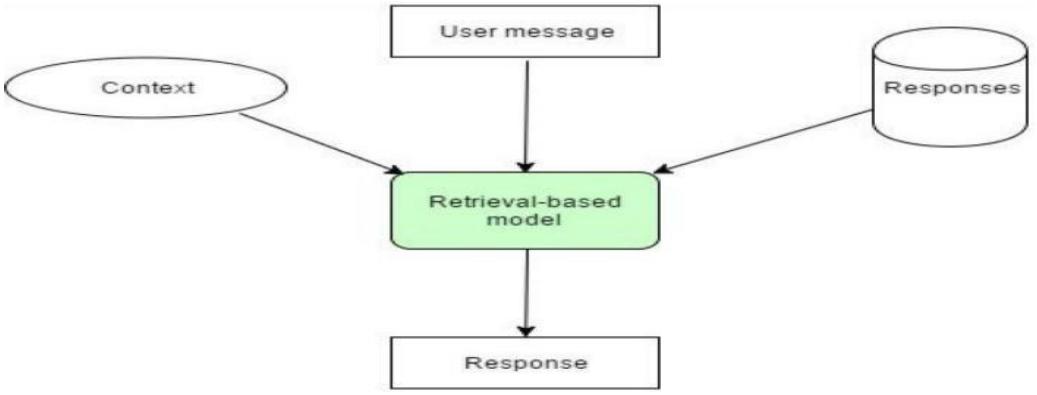

Fig 2.1.1(a): Retrieval-Based Model

2.1.2 Generative model

Generative models don’t rely on predefined responses. They generate new responses from scratch. Generally, Generative models don’t rely on predefined responses. They generate new responses from scratch. Generative based models are typically based on Machine Translation techniques, we translate a given query that is input to an output response, but not translating from one language to another. We based our generative models on the sequence to sequence neural network. This network was initially released for machine translation, but has also proved to be quite effective when it comes to building generative chat bots. Generative models are good for conversational chat bots with whom the user is simply looking to exchange banter. Generative chat bots also require a very large amount of conversational data to train. Customers usually do not always have this large amount of data readily available.

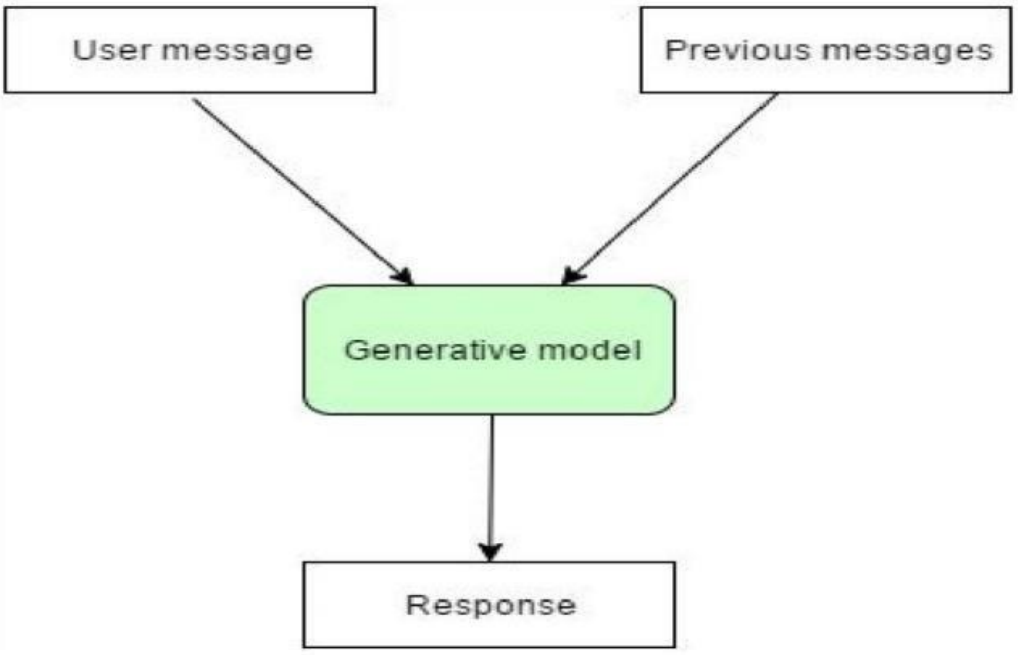

Fig 2.1.2(a): Generative Based Model

2,2 OPEN PROBLEMS IN EXISTING SYSTEM

There are lots of research carried out In the field of chat-bots. Some works among them are: titled, Chat-bots in the library: is it time? Is a paper published by DeeAnn Allison (University of Nebraska-Lincoln, Lincoln, Nebraska, USA).This paper aims at developing a chat-bot that is capable of answering questions regarding library and library resources. The chat-bot answers questions from a variety of users from around the world. The chat-bot was developed using a SQL database to store the question and answers using artificial intelligence mark-up language metadata. They excel at routine, repetitive tasks that can free librarians from the most common questions. Bots flatten a website, when someone chats with a bot they don't need to know the layout of the website, or the resources available to them. Information retrieval and sequence to sequence based engine is a technical paper by group of employees from the Alibaba Group on how a chatbot would be more than beneficial in the e-commerce sector. They proposed a novel integrated approach of two methods — Information Retrieval (IR) and Sequence to Sequence (Seq2Seq) models for the chatbot. 13 They developed a Q&A query-base from the customer log available in their company's database which served as the input for the chatbot engine. The procedure began with pairing the questions and responses-approximately an index of 10 million question base, with a threshold for those queries. If the responses

fell under the threshold then IR method was used, otherwise the sequence model was followed. Connecting analytics to products is already a common sense among web and app developers for long, and sure the same applies to chatbots too. Chatbot analytics is more complicated than web and app analytics. Since the interaction between user and chatbot includes three major parts: user interface, logic, and conversation; page view and message count are not the only things you should worry about anymore. For a service as complicated as chatbot, what traditional analytics tools are offering is way far from enough. New, specialized analytics that measures user engagement and conversational sentiments are needed

CHAPTER 3
REQUIREMENT ANALYSIS

3.1 FEASIBILITY STUDIES/RISK ANALYSIS OF THE PROJECT

3.2 SOFTWARE REQUIREMENTS SPECIFICATION DOCUMENT

Operating System :Windows XP and above.
Programming Language : Python.
Technology : Deep Learning.

CHAPTER 4

DESCRIPTION OF PROPOSED SYSTEM

In the Proposed System, we are implementing the extension to the Existing system. When chat-bot receives the question or any format of message to its system through either voice or through text, our chat-bot will support the idea of explaining each and every step of the given question through voice and it explains everything from the beginning to the end. If we ask through chat-bot to open any of the application, it explains us how to open the application through voice and parallely it shows us each and every step how it was being opened and justifies our questions with appropriate answers. The chat-bot also displays output with correct and exact format. The way in which our chat-bot is represented as an example if we want to open any of the application i.e camera or to open any file, it first mainly identifies the keyword camera or that file name and it goes to window icon and clicks at windows logo and opens camera or that particular file according to the command given.

4,1 SELECTED METHODOLOGY OR PROCESS MODEL

The algorithm used in our voice recognition chat-bot is Naive Bayes Algorithm. It is because like Naive Bayes algorithm only we have implemented to use predefined existing data, and also used the concept of Machine Learning. Like Machine learning algorithm only the predefined existing data was trained to perform the given task, and to execute correct output. In this algorithm, when we say a sentence it divides the sentence into individual words and finds the main "keyword" of our sentence. In our voice recognition chat-bot also we are using the same concept to determine and to find out the main "keyword". After finding out main keyword it performs the particular task of given sentence. we can ask the query either through text or speech. Then it divides the sentence into group of words and identifies particular keyword and executes the particular task.

4,2 ARCHITECTURE / OVERALL DESIGN OF PROPOSED SYSTEM

System architecture describes the overall structure of the system and the way in which the structure provides conceptual integrity. Architecture is the hierarchical structure of a program components and the manner in which these components interact with each other. In this system the one who wish to use the chat bot have to register with their username, email, phone no, and have to set a password. After successful registration they will login with their respective credentials. The details of the user will be stored in a data base. User have to give input as text or speech then the chat bot will give separate response generation and response selection modules, as shown in the diagram above. Message processing begins by identifying the main "keyword" ie notepad or camera etc .After identifying the main keyword it processes and executes the particular task. Typically it is a selection of one out of a number of predefined intents, though more sophisticated bots can identify multiple intents from one message. It stores all the information regarding the previous users of the chatbot system and stores in a database . All these responses should be correct according to specific input functions.

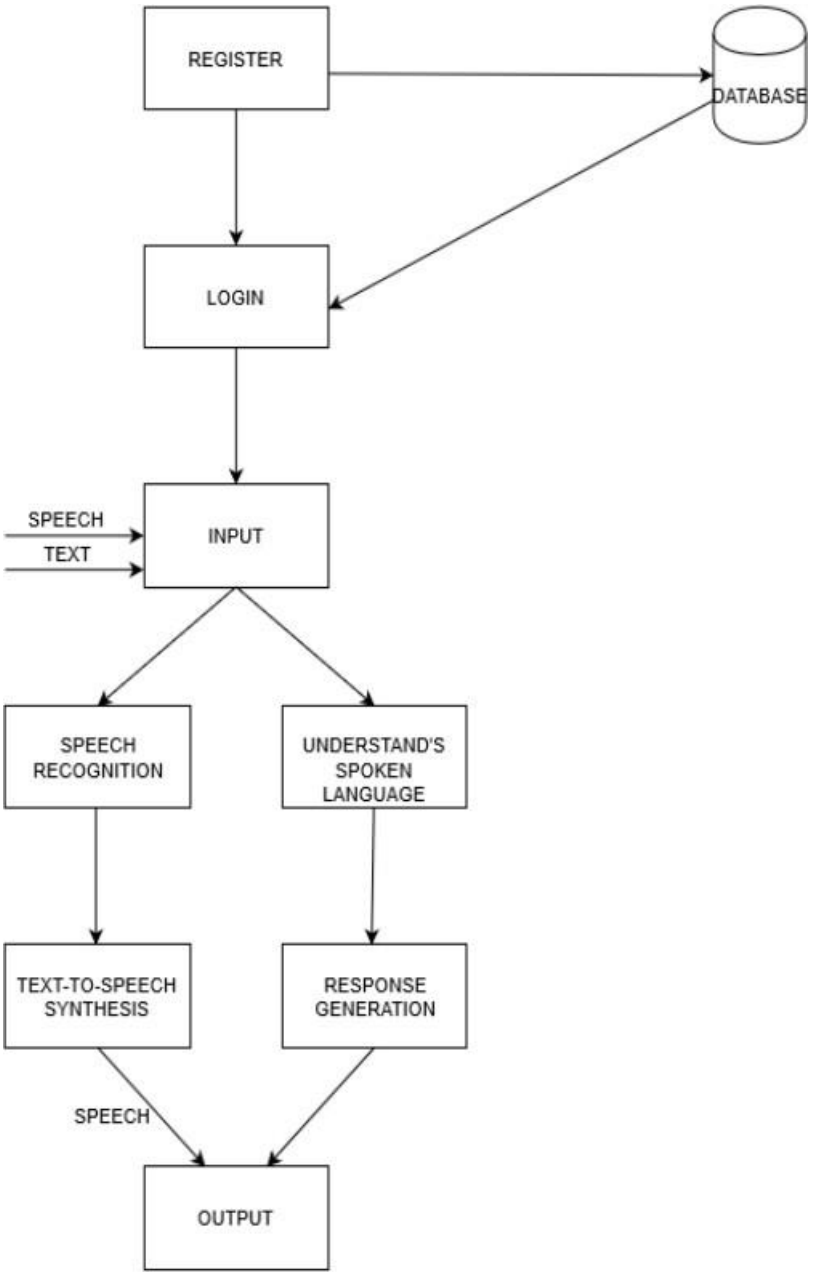

Fig 4.2: System Architecture for Chat-Bot Desktop Controller

4.3 DESCRIPTION OF SOFTWARE FOR IMPLEMENTATION AND TESTING PLAN OF THE PROPOSED MODEL/SYSTEM

4.4 PROJECT MANAGEMENT PLAN

4.5 FINANCIAL REPORT ON ESTIMATED COSTING

4.6 TRANSITION/ SOFTWARE TO OPERATIONS PLAN

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