

# **Chat-Bot for Blind Student**

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**Abstract:** *The Chat-bot for blind students is a Software application design to assist visually Impaired students in accessing educational Materials and communicating with their peer and teachers. The chat-bot uses artificial intelligence and text to speech technology to provide audio feedback to the user it can answer questions and read text aloud. The purpose of these android application is to provide educational based chat-bot for visually impaired students.*

**Keywords:** Chat-bot

## **I. INTRODUCTION**

Chat bot is an trending application which has made by an Artificial Intelligence. The Chat-bot is more helpful when it comes to the

Educational purpose. This Chatbot will provide The answer for educational based queries. So ,it will be more helpful for visually impaired people in their study purpose.

Whereas proposed Educational Chatbot application is made with an android platform. This application provide result about any topic which is included in Wikipedia. Hence it may support speech recognition for the user input.

AIML is used and it handles the AIML files which contains the pre-defined questions and answers. In AIML information retrieval is based on the three pattern matching techniques they are ,Symbolic reduction, divide and conquer and synonyms resolution.. The proposed Chatbot gives great flexibility for the visually impaired people to learn easily without others help.

This article is organized as follows, Section two explain about literature survey and proposed system is described in section three. Section four explains the system architecture. Section five is about experimental result and discussion. Finally system concluded in section six.

## **II. LITERATURE SURVEY**

“A Chat-bot -based study assistant for visually impaired Students,” by G.Sankar and S.Kannan. This paper represents the development of a chatbot based study assistant for visually impaired students,which uses natural language processing to assist with academic tasks.

“An intelligent chat-bot for visually impaired students,”by R.Mathankumar and S.Sankar this paper describes the development of an intelligent chat bot that can help visually impaired students navigate educational material and answer their questions

“Accessibility of chat-bot for visually impaired users,” by H.Nouri ,M. B. Shariatmadari,and N. Nayebi.This article discusses the importance of accessibility in chat-bot design for visually impaired students.

“Chat-bot for education: A review of the literature,”by M.Alqaraawi and H.AI Ayyoub. This article provides a comprehensive of the literature on chat-bot in education ,including their potential benefits for visually impaired students.

“A Systematic Literature Review on Chat-bot for Education ,” by J.A.Garcia-Sanchez and J.A. Ruiz -Mezcua. This review paper summarizes the findings of studies on chat-bots in education and provide insights into the design and development of chat-bot for visually impaired students.

Overall, the literature suggests that chat-bots can be a useful tool for blind students, helping them access educational materials and receive assistance with academic tasks. However, it is important to consider accessibility and usability when designing chat-bot to ensure that they are truly helpful for Visually impaired users.

### III. PROPOSED SYSTEM

A chat-bot designed for blind students would need to be equipped with various features and capabilities to make it accessible and useful firstly, the chat-bot should have a text to speech and speech to text capability to allow for communication through both text and voice it should also be able to recognize voice commands and respond accordingly a chat-bot designed for blind students should be a helpful and reliable tool for learning and communication, providing access to information and support in an accessible and user friendly way.

### IV. SYSTEM ARCHITECTURE

The architecture of system shown in fig.1 At first User gives the input as voice which is recognized by speech recognizer class in android Next voice is converted to text for getting the output from resources .user can change the resources run time

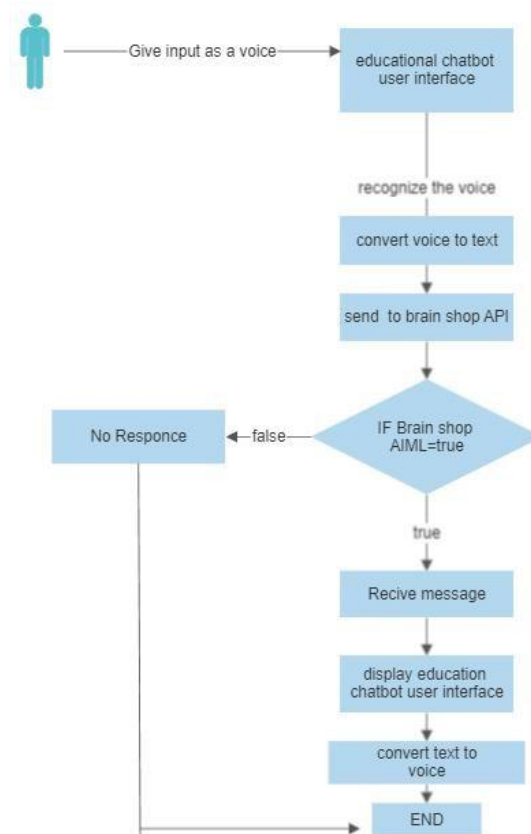


Fig 1. Architectural Diagram

The architecture contain the Brain shop and it is implemented in the following way. The first step in creating the chatbot is to design a knowledgebase, once the knowledge base has been created the next step to define the rules that the chatbot will use to respond to user queries, to understand the user queries Natural Language Processing(NLP) technology is used. So since the chatbot is being designed for blind students speech recognition technology can be integrated into the system.

Once the chatbot has been built is should be tested extensively to ensure that it is functioning as intended. Feedback from the user can be use to refine the chatbot and improve its performance over time.

## V. PATTERN MATCHING TECHNIQUES

### Symbolic Reduction

The purpose of using the symbolic reduction is to simplify pattern .It will be useful when user ask the complex grammatical questions. E.g.,

*User:* what is overloading?

*Bot:* Overloading means using the concept of polymorphism.

*User:* Do you know anything about overloading?

*Bot:* Overloading means using the concept of polymorphism.

### Divide and Conquer

Divide and conquer method is used to reuse the template for different queries to complete the response. E.g.,

*User:* oops

*Bot:* The core the object oriented programming is to create an object.

*User:* oops means

*Bot:* The core of the object Programming is to create an object.

### Synonyms Resolution

Synonyms Resolution used to give the same output for different query with similar synonyms. E.g.,

*User:* oops

*Bot:* It simplifies the software development process.

*User:* object-oriented programming *Bot:* It simplifies the Software Development process.

## VI. EXPERIMENTAL RESULT AND DISCUSSION

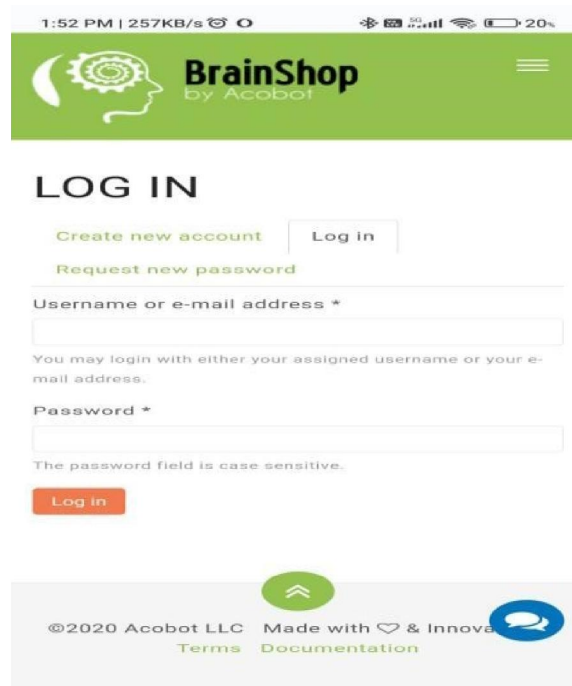
### STEP 1

User can open the Chat bot using voice command or directly clicking the app Icon. The interface of the application given in fig 2

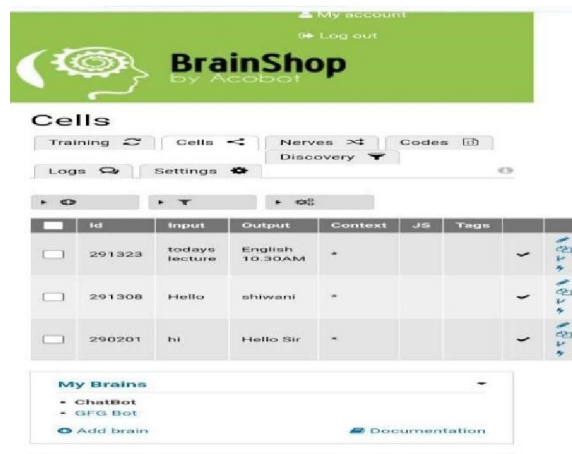


### STEP 2:

The chat bot application could provide any kind of information which included wikipedia and it also provide Teachers define information. In this module Teacher can add own question and their answer.



STEP 3: user can view feedback with their email id and date, time.



## V. CONCLUSION

In this paper we proposed the Educational Chat bot specifically for visually impaired people and it can also be used by normal people. This Chat bot uses the voice recognition for input and speech for output. So, it is easy for visually impaired person to use this application. It can be a useful tool in providing information, assistance and emotional support, it helps to enhance the learning experience for blind students. In future chat bot can be used for educational assistance, navigational assistance, personal assistance, social interaction.

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