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College Enquiry Chat-Bot using API.ai

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Abstract – *This paper is aimed at developing a "COLLEGE ENQUIRY CHATBOT". This system provides a text-based and Voice input user interface, allowing the user to type/speak commands and receive text as well as text to speech response. Chat Bots are usually a stateful services, remembering previous commands (and perhaps even conversation) in order to provide functionality. When chat bot technology is integrated with popular web services it can be utilized securely by an even larger audience. The college enquiry Chabot will be built using API.ai(DialogFlow) that analyzes user's query and understand user's message. This system will be an android application which provides answer to the query of the student very effectively. The student will not have to go to the college for enquiring something. Students can use this chat bot to get the answers to their queries. Students can use this android based system for making enquiries at any point of time. This system may help students to stay updated with the college activities.*

***Key Words*: Android, Firebase, API.ai(DialogFlow), Text to Speech, Chatbot**

1. INTRODUCTION

A CHATBOT is an artificial person (also known as talk bot, bot, chatterbox, Artificial conversational entity) which holds conversations with humans. It is a computer program which conducts a conversation via auditory or textual methods. Chat bot can run on local computers and phones, though most of the time it is accessed through the internet. Chat bot is typically perceived as engaging software entity which humans can talk to. It can be interesting, inspiring and intriguing. It appears everywhere, from old ancient HTML pages to modern advanced social networking websites, and form standard computers to fashionable smart mobile devices. College enquiry Chat bot project will be built using API.ai (DialogFlow) that will analyse user's queries and understand user's message. This system will be an android application which will provide answers to the queries of the students. Students will just have to ask query to the bot and the bot will response to the user according the query given. There are lots of chat bots available in the industry which can be used for various purposes. But, there is no chat-bot for making college enquiries. Thus, we are designing a Chat-bot which will help students to do necessary enquiries without even going to college.

2. RELATED WORK

[1]: Chat bots typically provide a text-based user interface, allowing the user to type commands and receive text as well as text to speech response. Chat bots are usually a stateful services, remembering previous commands (and perhaps even conversation) in order to provide functionality. When chat bot technology is integrated with popular web services it can be utilized securely by an even larger audience. Traditionally, the chat bot system is not known to people who are not more into the technology. Even if there exist a chat bot system, it is not much accurate in proving the answer or solutions. Students need to manually visit to the college to get their queries answered by the college help desk. This process consumes lot of time as well as money as the customer needed to visit college if its miles away from home. Also, this process may lead to communication gap between student and college. With the help of artificial intelligence, the system answers the query asked by the students. The system replies using an effective Graphical user interface which implies that as if a real person is talking to the user. The user can query about the college related activities through online with the help of this web application. This system helps the student to be updated about the college activities.

[2]: This System will be a web application which provides answers very rapidly. Students just have to place their query to the bot which is used for chatting. The system will use the artificial intelligence algorithms to give appropriate answers to the user. If the answer is found invalid, then some system to declare the answer as invalid can be integrated. These invalid answers can be revised by the admin of the system. Students will just have to select the category for the department queries and then ask the query to the bot that will be used for chatting. Artificial intelligence will be used to answer the student's queries. The student will get the appropriate answers to their queries. The answers will be give using the built in artificial intelligence algorithms. Students won't have to go to the college to make the enquiry. An interactive layer in a QA system also allows for more complex queries to be issued by the user as mistakes made by the system can be rectified through user input; or the system can engage the user to check its understanding of a user's query is correct.

[3]: In this paper, we use program‟ which is an AIML interpreter for the generation of the responses of users input. We have used this method for developing an android application Chabot which will interact with user using text

and voice responses. In our paper, we have used program-o, which is an open source AIML engine written in PHP. It is an interpreter for the AIML scripts of the Chabot. It uses MySQL database to store the Chabot details. Also, we are storing all the AIML scripts to the database. When user sends message to the Chabot program, then according to matched reply from the AIML, the answer is formulated and send back to the user. It can be directly installed on a local server under the GNU General Public License. In this paper, we have used the text and voice as user input. Text I/O is relatively effective as user can review for the input so that it can be rechecked if there are any mistakes. However, giving text input consumes time. So, the solution is to introducing voice interface with the speech recognition technology. By these methods, this Chabot application is very able to make conversation with the user.

[4]: This System is a web application which provides answer to the query of the student. Students just have to query through the bot which is used for chatting. Students can chat using any format there is no specific format the user has to follow. The System uses built in artificial intelligence to answer the query. The system provides appropriate answers as per user queries. The user can query college related activities such as date and timing of annual day, sports day, and other cultural activities. The system replies to the user with the help of effective graphical user interface. The user can query about the college related activities online with the help of this web application. This system helps the student to be updated about the college activities. Api.ai is a voice-enabling engine that allows the addition of voice interfaces to apps based on Android, iOS, HTML5, and Cordova to third party developers. The SDK's contain features like voice recognition, natural language understanding, and text-to-speech. It also offers a web interface to build and test conversation scenarios. to help you get started with developing your own Web sites, beyond simple WYSIWYG designing of Web pages in FrontPage, this article provides brief definitions of the major Web technologies along with links to sites where you can find more information, tutorials, and reference documentation.

3. AIM AND OBJECTIVES

1)Aim

The primary goal of this application is to provide the information of college to the user both in textual and in audio format.

2)Objectives

1. To automate the academic performance, Department notices, Placement updates and cultural activities of the student.
2. To notify student about various events like admission, academic performance, Department notices, Placement updates and cultural activities through the mobile application.
3. To provide the information and the recent events occurring in the college with interactive chat application.

4. PROBLEM STATEMENT

To design and develop a mobile application which is considered to be replacement of existing system i.e. student manually visiting college help desk to make an enquiry.

5. SCOPE

1. This application can be used by the students studying in that college.
2. The application is available 24*7 provided there is an internet connection.

6. METHODOLOGY

Administrator module: In this the administrator can manage the information that are stored in the system.

Student module: In this, the student can get his/her information or the answers to their queries.

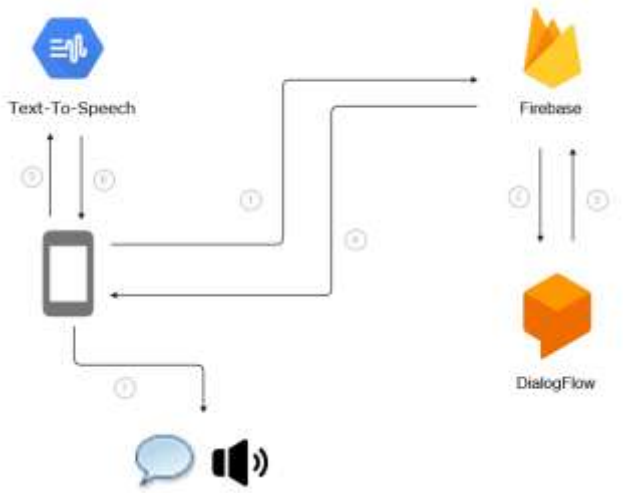

Fig 1: Architecture Diagram

1. The user asks/type the query.
2. The user utterance is sent to the dialogflow
3. User utterance is matched with an intent, extracts parameters, and returns a response.
4. The response of the particular queries is fetched by the application.
5. The response query is sent to TTS.
6. Text to speech result.
7. Response in text and as well as in audio format.

7. SCREENSHOTS

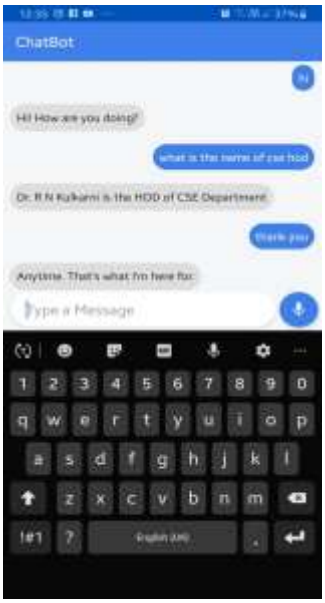

Fig 2: Chatbot Android app

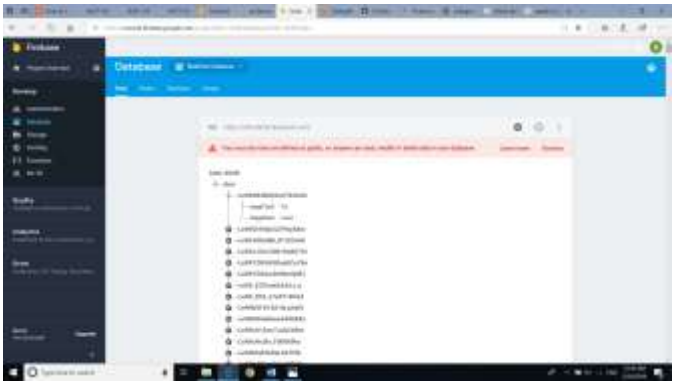

Fig 3: The user query and response is stored in the firebase

Fig 4: User utterance is matched with an intent, extracts parameters, and returns a response.

8. CONCLUSION

This paper aims to develop an android application that will be used to get answers related to user's submitted questions. The need is to develop a database where all the related data will be stored and to develop an interface. DialogFlow is used to match the user utterance with an intent, extracts parameters, and returns the response. A database will be developed which will store information about questions, answers, keywords, logs and feedback messages. A usable system will be designed, developed within an android application.

REFERENCES

[1] Pratik Salve "College Enquiry Chat Bot" International Journal on Recent and Innovation Trends in Computing and Communication ISSN: 2321-8169 Volume: 5 Issue: 3.

[2] Sarthak V. Doshi "Artificial Intelligence Chabot in Android System using Open Source" ProgramInternational Journal of Advanced Research in Computer and Communication Engineering ISO 3297:2007 Certified Vol. 6, Issue 4, April 2017

[3] BayuSetiaji" Chatbot Using A Knowledge in Database" International Conference on Intelligent System, Modling and Simulation 2016.

[4] An intelligent web-based voice chat bot Authors: du Preez, S.J. and Lall, M. and Sinha, S., May 2009

[5] DialogFlow Online docs: https://dialogflow.com/docs