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DEVELOPMENT OF CHATBOT FOR EDUCATIONAL PURPOSE

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Abstract: In educational institutions, enquires by students regarding the courses and colleges arises again and again. Most of the queries are getting solved from the information maintained by the education institutes in their websites. But, still there might be certain periods of high frequency of enquires by students. The machine has embedded knowledge about all the education related information that the university/college provides it with. It can handle most of the students queries if not all, and is able to scale it up quickly even when there is a sudden spike in enquires. The Chatbot responds automatically to a user's query (usually in a text-based environment). It can be utilized securely by an even larger audience when chat-bots technology is integrated with popular web services. The college inquiry chat-bots will be built using artificial algorithms that analyze user's queries and understand user's message. The user can ask the question any college-related activities through the chat-bot without being physically available to the college for inquiry. The system analyses the question and then answers to the user. The system replies using an effective Graphical User Interface for its user friendliness. Natural language processing technologies are used for parsing, tokenizing, stemming and filtering the content of the complaint. Chatterbot is a python library that will be used here.

Index Terms **- Artificial intelligence, chatbot, Education sector.**

I. INTRODUCTION

The development of the information technology and communication has made artificial intelligent systems more complex. The AI systems are approaching human activities such as taking a decision at a particular moment, performing day to day tasks. In an artificial intelligent field, there are some hybrid methods and adaptive methods available which are making systems more complex. Not only that but also there is a hybrid combination of natural language processing and intelligent systems. These systems can learn themselves and renew their knowledge by reading all electronics articles available on the internet. Human as a user can ask the systems like usually ask another human. These systems are often known as internet answering engines. In addition to the internet answering engines, currently, many applications are introduced such as chatter- robot or known as chatbot which is often aimed at giving an automatic reply or just for entertainment.

This application's work is very simple because the knowledge is already programmed in advance. Few of the methods used in this application are pattern-matching, natural language processing, data mining. The chatbot would match the input sentence from the speaker or user with that pattern existed in the knowledge base. Each pattern is then compared with the knowledge of chatbot. This knowledge has been taken from various sources. The introduction of Artificial Intelligence technology enables the integration of Chatbot systems into various aspects of education. This technology is increasingly being used for educational purposes. Chatbot technology has the potential to provide quick and personalized services to everyone in the sector, including institutional employees and students**.**

II. EXISTING APPROACH

In the existing chatbot systems there are having So many drawbacks. No response will be directed to admin. This system takes more time to give response with less accuracy. There is a need of man power to monitor the system. and there is no auto monitoring system and there is no database connection to chatbot. In the present world there is high demand for chatbot. Thus, there is a need for development of chatbot system with advance features in educational sector.

III. PROPOSED METHOD

In the proposed system, we are implementing a Android Chabot application to create a communication bond between the student and the machine representing the education environment. The knowledge base to this Chatbot is provided by the educational institutions themselves. Chatterbot is a package in communication service which is used to implement Chatbot. It enables easy communication between student and institution and does not require any highly skilled person to use it. Artificial Intelligence technology enables the integration of Chatbot systems into various aspects of education. technology is increasingly being used for educational purposes. Chatbot technology has the potential to provide quick and personalized services to everyone in the sector, including institutional employees and students. Whenever query like (pdfs, videos, audios, chat etc.) raised by student or faculty in chatbot application it searches in firebase(database) if answer is present it sends to user and ends the chat else it sends a message like sorry contact admin and it also sends message to admin to answer the query.

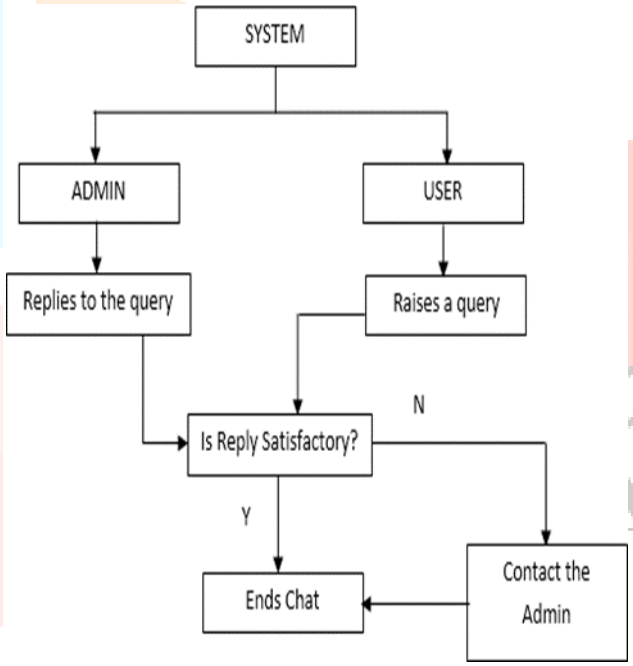

Figure 1 Block diagram of proposed Method

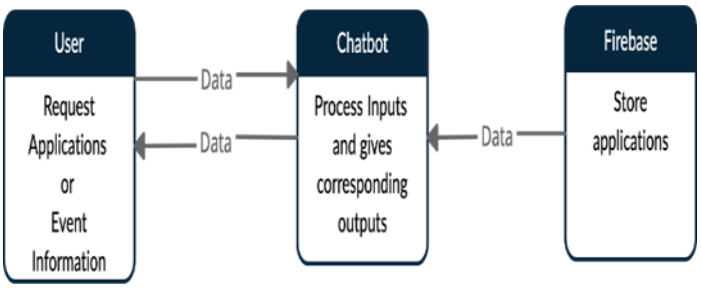

Figure 2 Figure 2: Block diagram of Data flow

IV. ADVANTAGES

This system has following advantages:

[1] Better student engagement.
[2] Instant assistance to students.
[3] Ability to scale easily whenever required.
[4] Extension to Chat Bot, that will reply emails.
[5] Resolve customer queries in a cost- effective, quick, and consistent manner.
[6] Chatbots are widely used tools when it comes to e-commerce, business purpose etc.
[7] Man power can be reduced.

IV. RESULTS

The solution we propose is a chat assistant with whom the users can converse and request for forms, the assistant provides the links to the PDFs that can be the printed by the user and filled, this removes the manual tasks of walking from place to place and offers a single place where all the forms required by user are present.

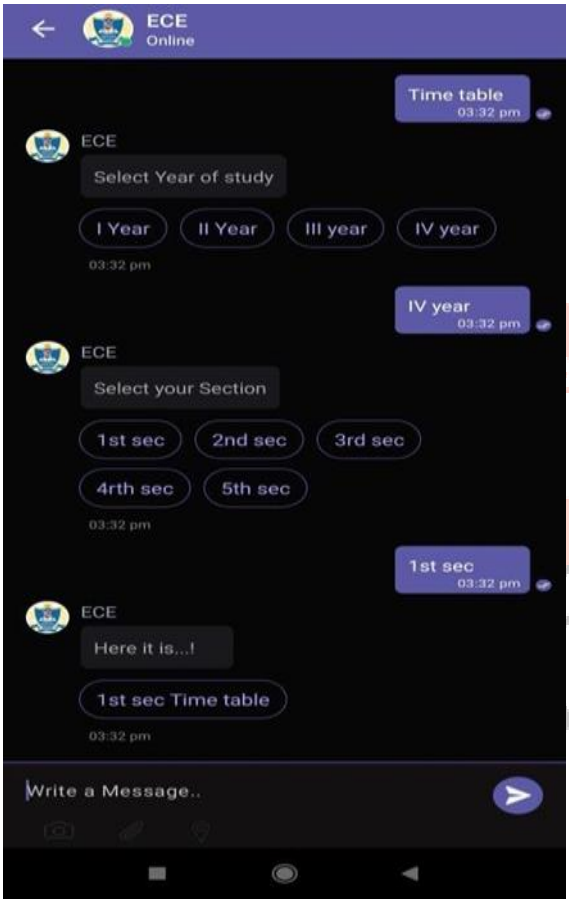

Figure 3 Chatbot Screen

V. CONCLUSION & FUTURE SCOPE

This project has explored the usage of conversation design techniques for exploring automation of manual tasks in educational institutions, we have used a combination of flutter and dart to get to the mobile application that where a chatbot built using kompose chatbot builder is stationed, these functions based on the principles of Natural Language Processing and integrates to a cloud fire store where the data to be delivered to the customer is placed.

This project has been thoroughly tested in various conditions and test cases, and provides a robust fail-safe experience to the users although many improvements can be done upon it. College Chatbot aimed at automating the manual and tedious processes in educational institutions using a conversational assistant, currently it is only automating form allocations, but the same can be done to many manual tasks such as directions, event listings, event instructions and many more. We will try to implement the same chatbot to perform the processes and take over the conversations that require a person, this would let them utilize their time to perform even more

efficient tasks and ensure valuable usage of their time. Bringing a conversational experience to such tasks has many benefits and we will work towards identifying them and implementing them.

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