e-ISSN: 2582-5208
International Research Journal of Modernization in Engineering Technology and Science
Volume:03/Issue:06/June-2021 Impact Factor- 5.354 www.irjmets.com

ADMISSION ENQUIRY CHATBOT SYSTEM

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ABSTRACT

The proposed system is considering a software that provides Graphical User Interface (GUI) for the user to interact with the application .This chatbot is used for collage inquiry through which a student can easily interact with collage and gets the information as well.It helps for those students who is living very far from college and wants to take admission in the college so they don't need to go in the collage for any enquiry as they can find all solution related admission with the help of the Chatbot. This chatbot is basically attached with the collage website so that anybody can interact with the collage and can easily collects all informations. Chatbot is the intelligent system as like human and it is developed by using Natural language processing and Artificial Intelligence algorithm. It is an essential system that provides each solution to the related queries.

Keywords: Artificial Intelligence(AI), HTML For Interface,Django ,Chat Bot System , Knowledge Base, Lemmatization For Grouping Words , NLP For Predictive Text , Semantic Sentence Similarity(SSS).

I. INTRODUCTION

A chatbot is a kind of a machine which is used in conversation between humans and respected institutes as well as organizations .This bot machine is well trained by providing a sufficient amount of dataset through which it can effectively give the answer of a particular questions. This machine is totally based on Artificial Intelligence libraries as well as Machine Learning which is very effective in tracking each words in the sentence. It works on the basis of string matching present in the given sentence and if the matching threshold is near/ close to the desired threshold then fetch the suitable answer to the user . Basically, it is a web based machine through which users insert/ write the query on the query box and after bot processing, machines can easily provide the best result/ answer to the users .This machine is made for the purpose of saved time and money as well .The system is basically contains aiml concepts to solves the query of a user because user can write many ways and it is the responsibility of a system to arrange the words and match with the database , if the sentence which is present in the database is completely matched then only it gives the relevant answer to the user and if the words not matched with the database then it automatically save the query of the user and when the admin see this query then admin can provide the suitable result / answer in the database through which bot system can easily fetch the result and gives to the users without wasting of single moment in the current scenario and because of this we can easily evaluate the efficiency of the bot system .

II. PROPOSED SYSTEM

Context Identification: Preprocessing is applied to standardize the input text like as a requirement of the system. On the basis of their keyword present in the sentence, suitable contexts are identified. AIML Respond Systems: when a users are trying to make a basic conversation with the suitable chatbot , then the text input is matched to a suitable pattern in the AIML container. If the text input is available in the container , then the user receive it as a

response. Different additional data provided to the chatbot such as users identity, gender of the user, contact no. etc. are also saved inside the AIML container. If the text input is not present in the AIML container, then a predefined response is sent "Please Enter Valid Input". Analysis of Query and Response System : When a user wants some information related to college, then the response is provided through different modules. If AIML file contain the patterns which matches the input, then the suitable / appropriate message will be sent to the user. If AIML container does not contain that particular text pattern then the keywords are extracted from the input text. This algorithm is used to check the similarity of the particular sentence to the modified input to check its similarities with the particular type of questions present in the container which are predefined.

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Context Reset: Once the chatbot is satisfied with the input of the user with its responses and does not chat further then it provides the option to log out from the system. When the user once logs out, all the conversation must be automatically reset.

III. METHODOLOGY

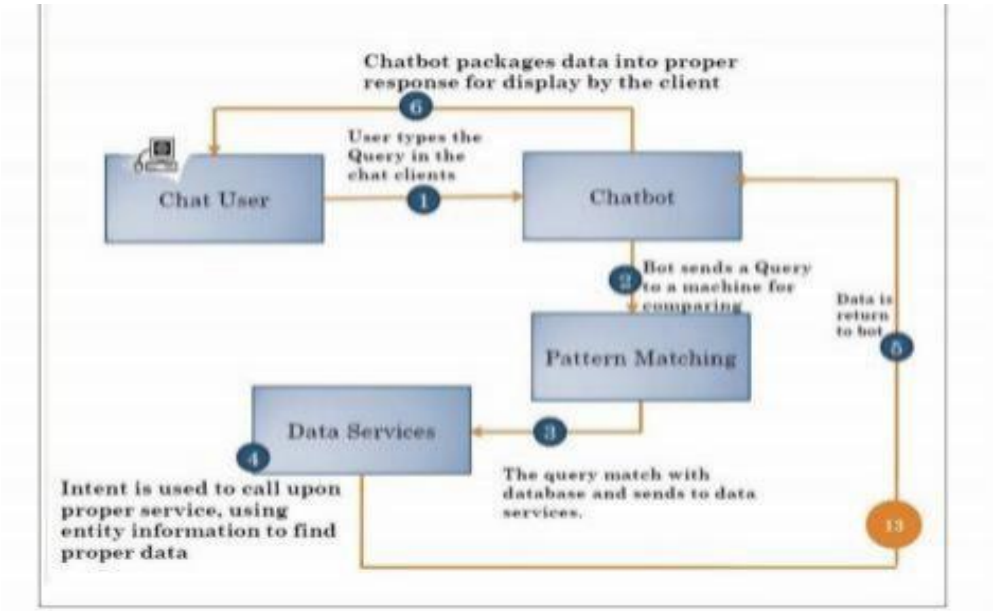

Fig. General Architecture of Proposed System

3.1 Algorithms Used:

3.1.1 Naive String matching algorithm:

This algorithm is used for searching the pattern of a sentence and it is simple to use from other algorithms that are used for pattern searching. It works on the characters present in the sentence/ pattern. It is real pattern matching because when it finds some characters similar with predefined characters of a string present in the database then it increases the probability and

when this probability is closed or equal to the threshold then it produces the desired output. <aiml>

<category>

<pattern>Do you know where is MIET SITUATED </pattern>

<template>MIET IS SITUATED AT N.H.54 DELHI ROORKEE

HIGHWAY.</template> </category>

<category>

<pattern>DO YOU KNOW WHERE IS</pattern>

<template>

<srai>WHERE IS <srai/></srai>

</template>

</category>

</aiml>

EXAMPLE-2

def search(F,D):

if __name__ == '__main__':

F ="GADMINBCADMIITCEFSADMINRED"

D= "ADMIN"

search(F,D)

Output:

We observe pattern at place 1

&

Second at place 18

: The first sample is at the 1 place . After the sample "ADMIN" was 1 observe here, the result is that the sample is noticed at place 1. And , the second sample is observed at the place 18.

3.1.2 Porter Stemmer Algorithm:

The Porter stemming algorithm is a procedure to pull out the common suffixes from the words in the Sentence. It is the process which is beneficial in the sphere of data retrieval.

This algorithm includes following steps:-

. It eradicates all the plurals and -ing, -ed suffixes.

. If there is another vowel in the sentence then it converts the word ending y to i. Form double suffixes to single ones: -ization, -ational, etc.

suffixes like, -full, - ness etc. Remove -ant, -ence, etc. Removes a final –e. Let us take an example of 'connect':-

-> connect

-> connected

-> connection

->connecting

3.2 Artificial Intelligence Modeling Language:

Artificial Intelligence Modelling Language is a simple extensible markup language used to generate AI operations. Artificial Intelligence Modelling Language used to build up the human interfaces although keeping the execution uncomplicated to the program, simple to acknowledge & extremely maintainable.

Formation as -:

```
<aiml>
  <category>
        <pattern> HEYY MIET </pattern>
  <template>
              HEYY User!
</template> </category>
</aiml>
```

3.3 Semantic Sentence Similarity-Semantic similarity is useful when you're grouping like terms into an interpretation idea which means the same Or it is very useful as a building block in natural language understanding task**s.** For example, query 1: What is the schedule regarding cse branch examinations? query 2: Tell me about the examination schedule of cse branch in our college. Query1 and Query2 both make equal sense. Additionally, That query will have the several composite and detecting all that composite will not be achievable. The flexibility and production of the structure will also get disturb . To control this issue, analogy is obtained in the middle of the i/p given by the user and the questions which are available in the query set (whose output are accessible from the structure).

Log File: System,a record file is managed by us that keeps the incoming data whose response was not given by chatbot. Administrators manage the record and make additions in the answer of suitable sentences to the database.Through this there will be upgradation in bot databases which adds to it.

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IV. MODELLING AND ANALYSIS

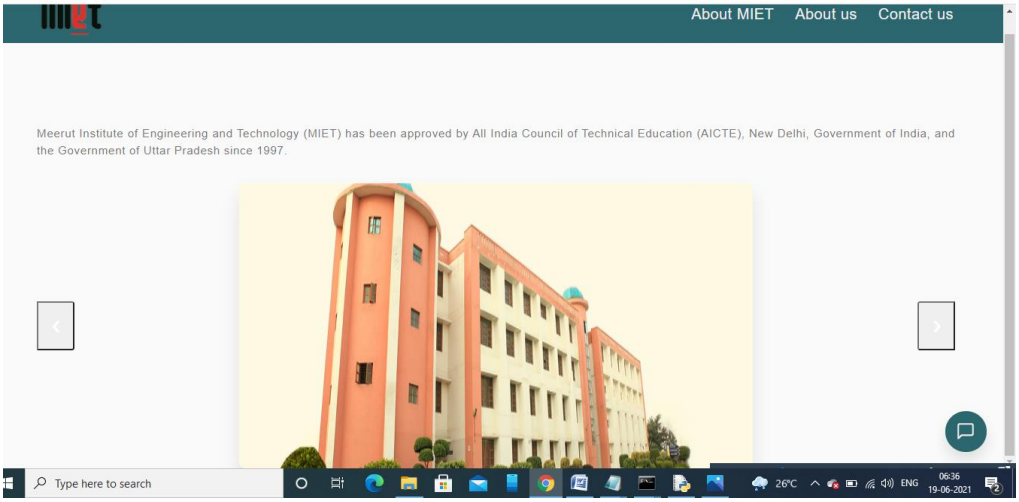

Fig. User Interface

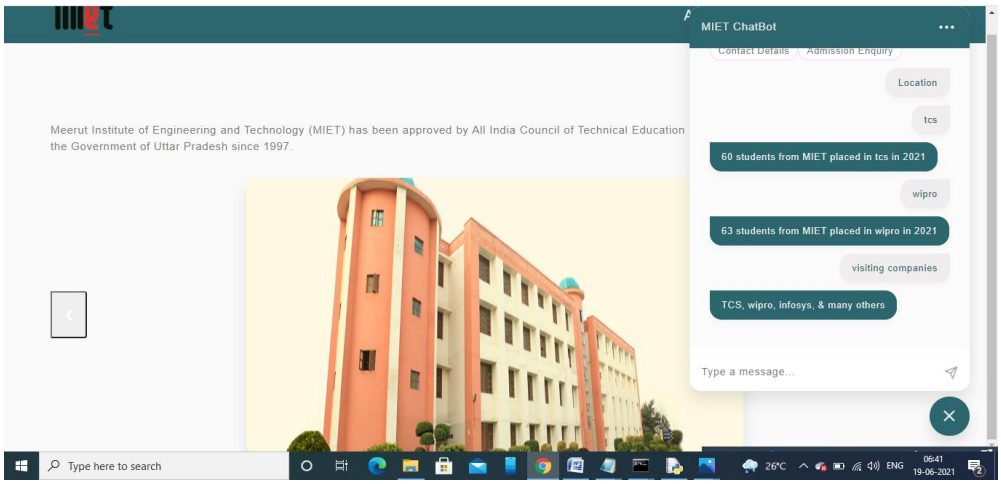

Fig. Query Processing

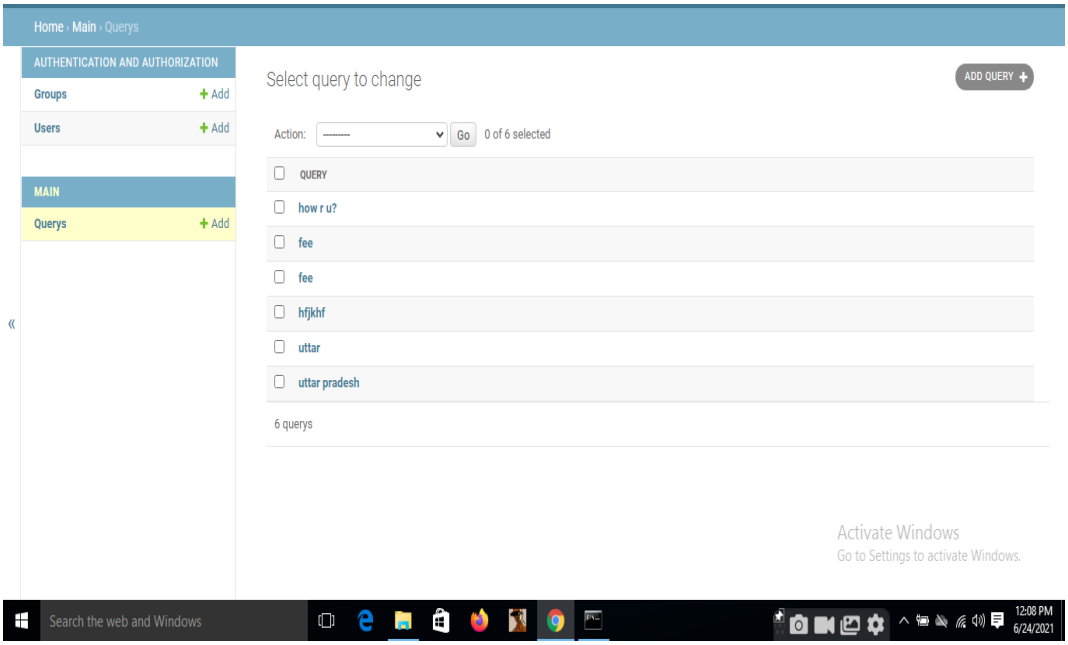

Fig. Database / Log file

V. RESULT

Threshold value=1.0

Input query	Database storage	Matching Score	Result Obtained
what is the fee structure of computer science branch?	fees structure of btech in computer science is 1.25lac	0.73	computer science branch is 1.25lac
	The fee structure of btech is 1.25lac	0.44	
Where is miet located?	Location of miet is Meerut, NH58 bypass road , UP	0.56	Miet is Located in Meerut , NH58 Bypass Road ,UP
	Miet is Located in Meerut , NH58 Bypass Road ,UP	0.94	

VI. APPLICATION

This application helps everyone as they get updated information like what is happening in college. Chatbot is beneficial in time saving and it is also an efficient way to get updated with college. Without taking any physical efforts it provides us a readily available information source. It saves time, easily accessible and money as well.

VII. CONCLUSION

This chat bot is made to handle the questionnaire by giving a user friendly system to solve questions of bachelors and faculties .Aim of this chat bot is to manage queries. Its construction combine a pattern of language and (math-based/computer-based) set of computer instructions to pretend to be information between a computer and a human using NLP. In Future, in place of AIML used chatbot, we can also implement other algorithms.voice-over queries can be included . Voice input is given by the user, then the system will provide a reply as output. We can also do some research after the successful completion of college chatbot and can implement it in different regions like medical, banks, etc. Although it is the best way to step-in in AI.

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