

## College Chatbot

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### Abstract

Creating a chatbot to be used by the students to get their queries responded easily from the college website. The College Chatbot has the capacity to make friendly conversations; respond the course and faculty details; give the link for the academic calendar; answer the frequently asked questions; calculate the fees based on the student's input; and give the timings, address, contacts, and events information of the departments like Union and Library. To build the chatbot, Microsoft Azure bot service as well as Microsoft cognitive services, namely, Text Analytics, LUIS, and QnA Maker are used. In order to address these problems, the College Enquiry Chatbot extends the implementation of the current chatbots by adding sentiment analysis and active learning

### INTRODUCTION

Creating a chatbot to be used by students to get their queries responded easily from the college website. A chatbot is a program which can do real conversations with textual and/or auditory methods Using Artificial Intelligence (AI), chatbots can simulate human conversations. The most important advantage of having a chatbot is that it is available 24/7. No matter what time it is, a user can get a query solved. All these advantages of a chatbot constitute the motivation to implement a College Enquiry Chatbot.

### LITERATURE SURVEY

#### 1. COLLEGE ENQUIRY CHATBOT

Authors: Ms.Ch.Lavanya Susanna, R.Pratyusha

Year: 2020

Often, we tend to pay our time interacting with varied chatterboxes on the web, largely targeted at such functions or simply amusement. The chatbots have embedded data that helps them acknowledge the user's question and supply a solution to that. The college enquiry chatbot project is intended exploitation algorithms that interpret user queries and perceive user's message. The college enquiry chatbot project is developed exploitation algorithms that analyse user queries and perceive user message. This technique may be a internet application that gives answers to the student's question. Students would like solely

question through the bot want to chat. The program analyses the user's question and answers it then. The machine responds to the question, as if the person were asking it. The program responds to the students' question with the assistance of algorithms. The system will have a web board which may read any text notices or PDF documents through the links. this can facilitate the user get the relevant notifications modified. The user will not waste a lot of time searching for the acceptable notices.

## 2. Chat-Bot For College Management System Using A.I

Authors: Prof.K.Bala1,Mukesh Kumar

Year: 2017

A chat-bots aims to make a conversation between both human and machine. The machine has been embedded knowledge to identify the sentences and making a decision itself as a response to answer a question. Chat-bots will be completely based on 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 stateful services, remembering previous commands in order to provide functionality. 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 analyse user's queries and understand user's message. The response principle is matching the input sentence from a user. The User can ask the question any college-related activities through the chat-bot without physically available to the college for inquiry. The System analyses the question and then answers to the user. With the help of artificial intelligence, the system answers the query asked by the students. The system replies using an effective Graphical User Interface as if a real person is talking to the user. The user just has to register himself to the system and has to login to the system. The chat-bots consists of core and interface that is accessing the core in (MySQL). Natural language processing technologies are used for parsing, tokenizing, stemming and filtering the content of the complaint.

## 3. REVIEW ON CHATBOT

Authors: Mrs. Nidhi Sharma, Gayatri

Year: 2020

Chatbot (College Enquiry Chatbot) using Artificial Intelligence to user provide college information. This could be a text based (typed) conversation, even a non-verbal conversation. Its Web application is for college student and parents. Easy way to interaction and time consuming

#### 4. COLLEGE ENQUIRY CHATBOT SYSTEM (DMCE)

Authors: MR Harish Dornal, MR. Manoj Annaldas

Year: 2019

Agents that interact with human in way of conversation are known as Chatbots. Chatbots pass the Turing test. The main aim to build the chatbots that resolving the queries of the user. It's is done using Natural processing language, which analyse the user query and extracts the indents from it. After this the response gets generated and with the help of AIML i.e. (artificial intelligence markup language) the response gets displayed.

##### **Existing System**

In the existing system, process of consultation is done manually, where student will go to the college directly and consult with the teacher, upon which the doubts takes place. It takes a lot of time, to overcome this drawback in the existing system, through this project we are proposing an Artificially Intelligent Chatbot System.

##### **Disadvantages**

- ❑ Time consuming.
- ❑ Manual process.
- ❑ May lead to errors by human intervention.

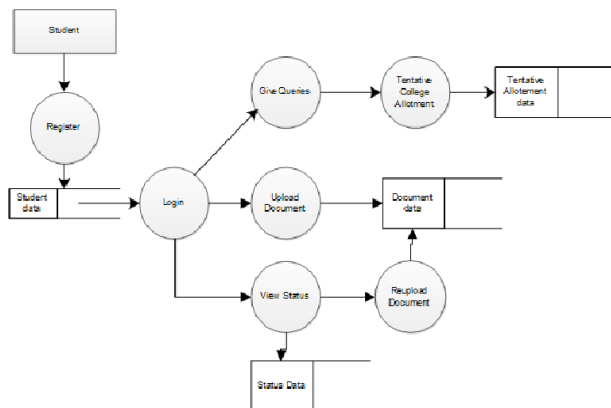
##### **Proposed System**

The proposed system provides a text-to-text conversational agent that asks the students about their issue. The students can chat as if chatting with a human. The chatbot asks a series of questions about the doubts. It gives suggestions about the different answers to clarify the doubts. Based on the feedback from the student the accurate result is found and it suggests the college. The system remembers past responses and asks progressively more specific questions in order to obtain a good result.

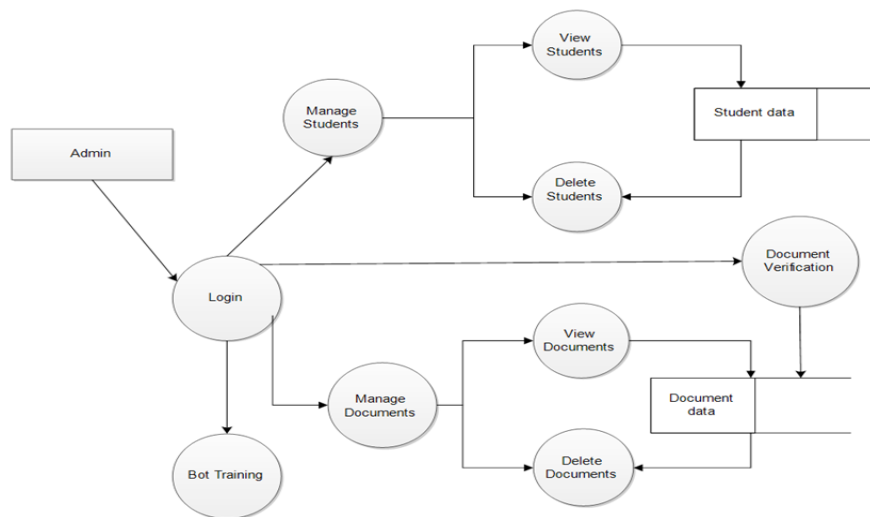
##### **Advantages**

- ❑ Saves time and money
- ❑ Generates new leads
- ❑ Guides use
- ❑ Provides 24 x 7 support

### Level 1 Student dataflow diagram



### Level 1 admin dataflow diagram



## SYSTEM DESIGN

### Data Flow Diagram

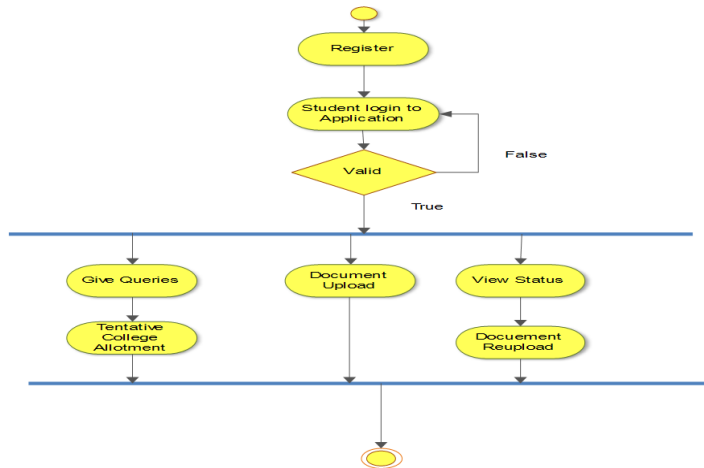
DFD graphically representing the functions, or processes, which capture, manipulate, store, and distribute data between a system and its environment and between components of a system. The visual representation makes it a good communication tool between User and System designer. Structure of DFD allows starting from a broad overview and expand it to a hierarchy of detailed diagrams. DFD has often been used due to the following reasons:

- ▣ Logical information flow of the system
- ▣ Determination of physical system construction requirements
- ▣ Simplicity of notation
- ▣ Establishment of manual and automated systems requirements

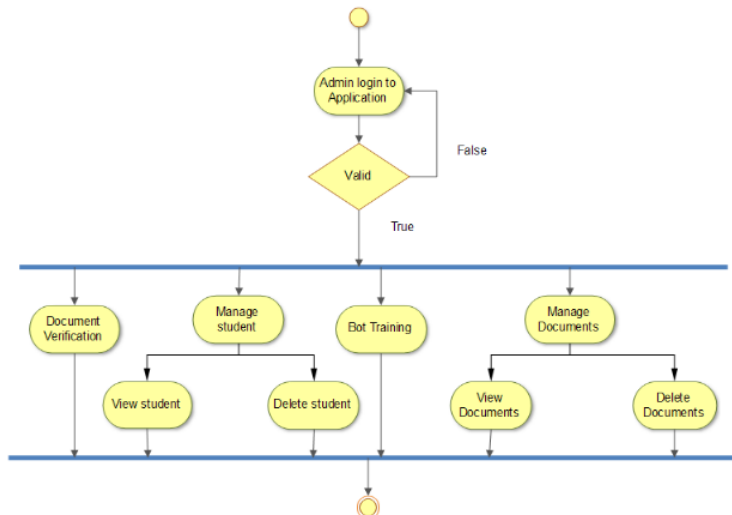
## Sequence diagram

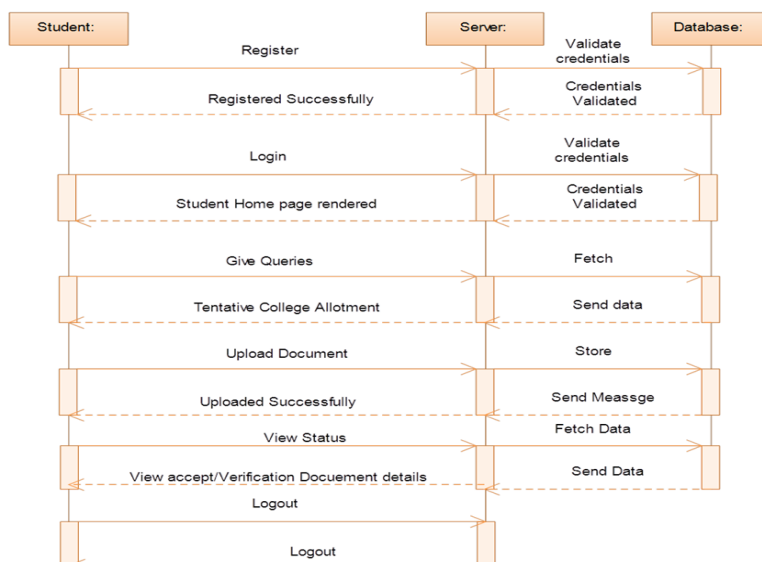
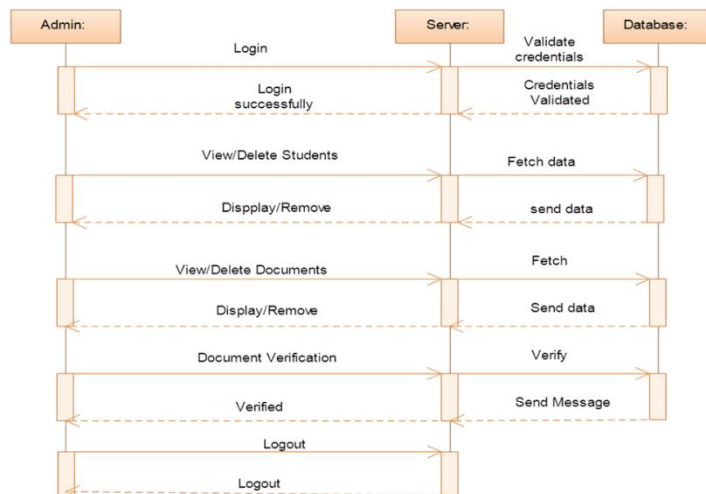
A sequence diagram shows object interactions arranged in time sequence. It depicts the objects and classes involved in the scenario and the sequence of messages exchanged between the objects needed to carry out the functionality of the scenario. Sequence diagrams are sometimes called **event diagrams**.

### Student activity diagram



### Admin activity diagram





## CONCLUSION

To conclude, College Enquiry Chatbot is helpful in guiding students with correct and most up to date sources of information. It is advantageous for international applicants for queries such as fee payment and academic matters. Students can get the information at their fingertips rather than visiting college office. It improves efficiency by taking over tasks for which humans are not essential. Sentiment analysis implemented in College Enquiry Chatbot correctly recognizes the user's query such as positive, negative, and neutral by storing all the conversations in the database. To improve the current of College Enquiry Chatbot, in the future, the scope of the chatbot can be increased functionalities by inserting data for all the departments, training the bot with varied data, testing it on live website, and based on that feedback inserting more training data to the bot. Some of the new features which can be added to the bot are 1) speech recognition feature through which students can ask their queries verbally and get the answers from

the bot, 2) integration with multiple channels such as phone call, SMS, and various social media platforms like Skype, Facebook and Twitter, 3) handling context aware and interactive queries in which both will be aware of the context of an ongoing conversation with a student, 4) integration with services such as password reset and course enrolment, and 5) adding a capability for the bot to perform analytics based on user's sentiment based on which the bot can be re-trained on human emotions so that more empathy can be added to the bot.