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CHATBOT SYSTEM FOR COLLEGE

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Abstract

College Enquiry Chat Bot project will answer to student questions that is related to college. First bot analyzes user's queries and understand user's message, based on bot knowledge bot provide answers to the queries of the students. Students will just have to select the category for the department queries and then ask the questions to the bot that will be used for chatting. Student can query related to admission, faculty details, etc. Students won't have to go to the college to make the enquiry. If any new candidate enquirers for admission and the details about any department of the collegethis bot will help to get the answer of query of the candidate and even while getting the answer the bot will read out the answer to the candidate If the answer found to invalid, user just need to select the invalid answer button which will notify the admin about the incorrect answer. Admin can view invalid answer through portal via login System allows admin to delete the invalid answer or to add a specific answer of that equivalent question. The User can query any college related activities through the system. The user does not have to personally go to the college for enquiry. The System analyzes the question and then answers to the user. The system answers to the query as if it is answered by the person. 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.

I INTRODUCTION

This Application is for college students, staff, and parents. Easy way to interaction and time consuming. This project is mainly targeted at colleges and the synchronization of all the sparse and diverse information regarding regular college schedule. Generally, students face problems in getting correct notifications at the correct time, sometimes important notices such as campus interview, training and placement

events, holidays, and special announcements. Smart Campus tries to bridge this gap between students, teachers, and college administrators. Therefore in the real world scenario, such as college campus, the information in the form of notices, oral communication, can be directly communicated through the android devices and can be made available for the students, teachers directly for their android devices and the maintenance of application will be easier in later future because of the use of architectural MVC which separates the major works in the development of an application such as data management, mobile user interface display and web service which will be the controller to make sure for fast and efficient maintenance of application. The College bot project is built using artificial algorithms that analyses user's queries and understand user's message. This System is a web application which provides answer to the query of the student. Students just must 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 answers are appropriate what the user queries. The User can query any college related activities through the system. The user does not have to personally go to the college for enquiry. The System analyses the question and then answers to the user. The system answers to the query as if it is answered by the person. 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 just must register himself to the

system and has to login to the system. After login user can access to the various helping pages. Various helping pages has the bot through which the user can chat by asking queries related to college activities. The system replies to the user with the help of effective graphical user interface. The user can query about the college related activities through online with the help of this web application. The user can query college related activities such as date and timing of annual day, sports day, and other cultural activities. This system helps the student to be updated about the college activities. Chatbot is a computer program that humans will interact with in natural spoken language and including artificial intelligence techniques such as NLP (Natural language processing) that makes the chatbot more interactive and more reliable.

Based on the recent epidemiological situation, the increasing demand and reliance on electronic education has become very difficult to access to the university due to the curfew imposed, and this has led to limited access to information for academics at the university. This project aims to build a chatbot for Admission and Registration

to answer every person who asks about the university, colleges, majors, and admission policy. Artificial intelligence (AI) is a branch of computer science that focuses on creating machines that can perform tasks that typically require human intelligence, such as perception, reasoning, learning, and decision-making.

AI uses a combination of techniques, including machine learning, natural language processing, computer vision, and robotics, to enable machines to learn from data and adapt to new situations. In the context of a college enquiry chatbot, AI would allow the chatbot to understand and respond to natural language queries from students, providing them with relevant information and support. Artificial intelligence (AI) plays a crucial role in the development and functionality of chatbots. Chatbots are computer programs that use natural language processing (NLP) to interact with humans and simulate conversation. AI algorithms power the NLP capabilities of chatbots, enabling them to understand and respond to users' requests.

II LITERATURE SURVEY

Professor Girish Wadhwa suggested that the institution build an inquiry chatbot using artificial intelligence in March-April 2017. Algorithms that might analyze consumer inquiries and recognize consumer messages. This machine might be a chatbot with the intention to provide solutions to students' questions. Students actually need to pick out a category for department requests and then request a bot to be used for chat. The project's main goal is to develop an algorithm that may be used to correct the answers to queries that customers ask. It is essential to create a database where all related statistics can be kept as well as to expand the online interface. A database can develop to be able to compile information on queries, responses, key words, logs, and messages. 2016 saw Bayu Setiaji publish "Chatbot the usage of database knowledge." A chatbot is made to communicate with technology.

Machine learning is built to recognize sentences and concluded, such as the answer to a question. Personalized message, i.e. A request is saved in accordance with the response. The more similarly the statements are stated, the more it will be marked as similarity of the sentences. It is then answered in light of the answers from the first sentence. The sentence similarity calculator breaks the input sentence down into its component letters. A database stores the knowledge of chatbots. A chatbot has interfaces, and the database control system's access point through this interface is at its core. The Chatbot application was created using a variety of programming languages with the addition of a user interface that allows users to give input and

get a response. Starting with the symbol of entity date, which produced 11 entities and their cardinalities, the structure and building of tables was done as an indication of the knowledge contained inside the database. SQL was used in a way that was tailored to the model that was kept inside the programme.

Elisa is regarded as the first chatbot to operate in a single machine model. Joseph Weizenbaum was the one who created it in 1964. ALICE is a rule-based chatbot that uses Artificial Intelligence Markup Language (AIML). It includes approximately 40,000 categories with an average of an example and a response for each category. A summary of chatbot programmes that have evolved through the usage of AIML scripts was presented by Md. Shahriare Satu and Shamim-Ai- Mamun. They asserted that entirely AIML-based chatbots are easy to set up, lightweight, and eco-friendly to use. post provides information on the various ways that chatbots are used. An AIML and LSA based chatbot was created by Thomas N. T. and Amrita Vishwa to provide customer support on e-commerce platforms.

We can implement chatbots in the Android-powered device utilising a variety of techniques. In their post on Android Chatbot, Rushab Jain and Burhanuddin Lokhandwala demonstrate one method. Creating a Chatbot that Imitates a Historical Person by Emanuela Haller and Trajan Rebedea, IEEE Conference Publications, July 2013. A person with expertise in creating databases constructed the database. Yet, very few academics have looked into the idea of building a chatbot with an artificial personality and character by starting with pages or simple text about a particular person. In order to create a debate agent that can be used in CSCL high school settings, the paper discusses a method for highlighting the key information in texts that chronicle the life of a (private) historical figure.

An Introduction to Teaching AI in a Simple Agent Environment by Maya Pantik, Reinir Zwitserloot, and Robbert Jan Grootjans, IEEE Transactions on Education, Vol. 38, number three, August 2005 in this article, a flexible approach to basic the use of a novel, totally Java-based, simple agent framework developed specifically for this course to teach artificial intelligence (AI) is described. Despite the fact that many agent frameworks have been presented in a variety of literature, none of them has been widely adopted to be simple enough for first-year laptop technology college students. Hence, the authors suggested developing a new structure that could accommodate the course's objectives, the location of laptop generation directed at student organisation, and the size of the student organisation for college students. "An Intelligent Chatbot System for College Admission Process" by S. Sheikh et al. This paper proposes an intelligent chatbot system that

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utilizes a knowledgeable database to provide information about the college admission process. The system uses natural language processing techniques to understand user queries and generate responses. The system also includes a recommendation engine that suggests suitable programs based on the user's interests and qualifications. The inclusion of recommendation engines further enhances the usefulness of these systems by suggesting suitable programs based on the user's

III EXISTING SYSTEM

There are several open problems that need to be addressed in college enquiry chatbots to improve their performance and provide better user experience. Here are some of the key open problems in college enquiry chatbots:

Intent Identification: One of the primary challenges in developing a college enquiry chatbot is accurately identifying the user's intent. College enquiries can cover a wide range of topics, and the chatbot needs to correctly identify the user's intention to provide an appropriate response.

Accuracy: While chatbots can provide quick and convenient access to information, they are not always accurate in their responses. This is because the chatbot's database may not always be up-to-date, or the natural language processing algorithms may not be able to correctly interpret the user's queries.

Knowledge Base Management: A college enquiry chatbot needs to have access to a large amount of information about the college, including admission criteria, course offerings, faculty, and campus facilities. Managing this knowledge base is a significant challenge, as the information is often dispersed across multiple sources and needs to be kept up-to-date.

Natural Language Processing: Chatbots need to be able to understand and process natural language inputs accurately. However, natural language processing (NLP) technology is still in its early stages, and there are many challenges in accurately interpreting the meaning of user queries.

Multilingual Support: Colleges often have students from different parts of the world, speaking different languages. Providing multilingual support in college enquiry chatbots is a challenge that requires advanced NLP capabilities and a well-designed language model.

IV PROPOSED SYSTEM

A study is carried out to select the best system that meets the performance requirements. Feasibility is the determination of whether a project is worth doing or not. The process followed in making this determination is called a feasibility study. This type of study determines if a project can and should be taken. Since the

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feasibility study may lead to the commitment of large resources, it becomes necessary that it should be conducted competently and that no fundamental errors of judgment are made. Depending on the results of the initial investigation, the survey is expanded to a more detailed feasibility study. Feasibility study is a test of system proposal according to its work-ability, impact on the organization, ability to meet user needs, and effective use of resources. The objective of the feasibility study is not to solve the problem but to acquire a sense of its scope. During the study, the problem definition is crystallized and aspects of the problem to be included in the system are determined.

Save timing of students and teachers and also save extra manpower. Student can see all document related college like, notice, study material, question papers etc. on time to time and from any place whether student is present in college or not. And also reduce the work of staff. It is proper communication in between staff and students.

Natural language processing algorithms: To interpret user queries and generate accurate responses.

Knowledgeable database: To store information about college programs, courses, and admission requirements.

Recommendation engine: To suggest suitable programs based on the user's interests and qualifications.User interface: To provide a user-friendly and intuitive interface for users to interact with the chatbot.Data collection and processing: To gather and organize information about college programs, courses, and admission requirements.

Algorithm development: To develop natural language processing algorithms that can interpret user queries and generate accurate responses.

Database design and implementation: To design and implement a knowledgeable database that can store and retrieve information about college programs, courses, and admission requirements.

User interface design and implementation: To design and implement a user interface that is intuitive and user-friendly.

Testing and evaluation: To test the chatbot system for accuracy, usability, and performance.

V IMPLEMENTATION

Admin:

Add Student: The Admin adds the student and the password is generated by the system and sent to the students Mail Id.

Add Course: The Admin is allowed to add the Course and its Subjects semester wise.

Add Timetable: The Admin is allowed to add the timetable for the course semester wise in the form of an .jpg

Add Schedule: The Admin is allowed to add the Schedule for the course semester wise in the form of an .jpg

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Add Booklet: The Admin adds the booklet limited to a pdf file only.

Add Test Solutions: The Admin adds the test solutions limited to a pdf file only.

Add Vide Links: The Admin adds the video links which is a URL.

Add Weekly Marks: The Admin adds weekly marks; weekly marks are not subjecting wise and out of 25.

Student:

Student Login: The Student is allowed to login into the App with password sent to his/her email Id and is remembered once logged In.

View Timetable: The student can check timetable limited to only his/her course and semester, it's an Image and can be pinch zoomed.

View Schedule: The student can check Schedule limited to only his/her course and semester, it's an Image and can be pinch zoomed.

View Booklet: The Student can see a list of the booklets limited to his/her course and semester which are viewed by default by Google docs.

View Test Solutions: The Student can see a list of the test solutions limited to his/her course and semester which are viewed by default by Google docs.

View Video Links: The Student can checkout video links which are directed to the dedicated web link.

View Weekly Marks: The Student can see his weekly marks and the marks are displayed as a Bar Report.

View PT1/PT2: The Student can see his marks in the form of 2 reports namely Line Chart and Pie Chart.Line Chart is divided into 3 fragments (Highest, Average and Students

Marks) to help the student with his progress and rank Pie Chart shows only the students marks.

University Link: The link is redirected to the Web.Text to Speech: The bot also speaks out the answer. (If student have any query student write query in text view and android app answer it in voice and also text format.)

View College related information e.g., Events, workshop doc, photos, branch info with photos. Which is useful for represent college.

Parent:

Parent Login: The Parent is allowed to login into the App with password sent to his/her email Id and is remembered once logged In. View College related information e.g. Events, workshop doc, photos, branch info with photos. Which is useful for represent college.

View Marks: The Parents can see his/her child marks and the marks are displayed as a Bar Report.

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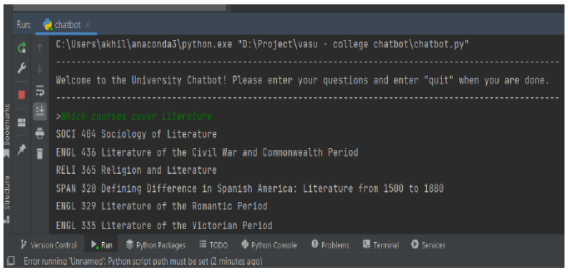
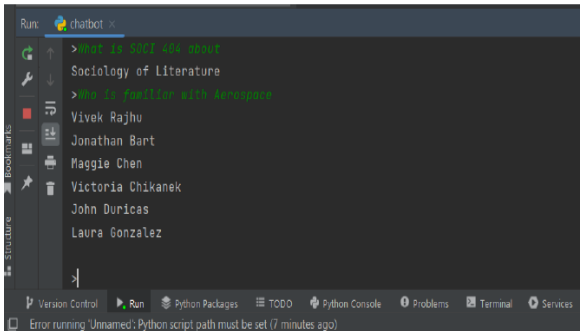
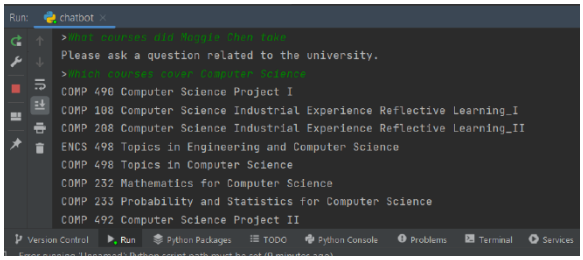
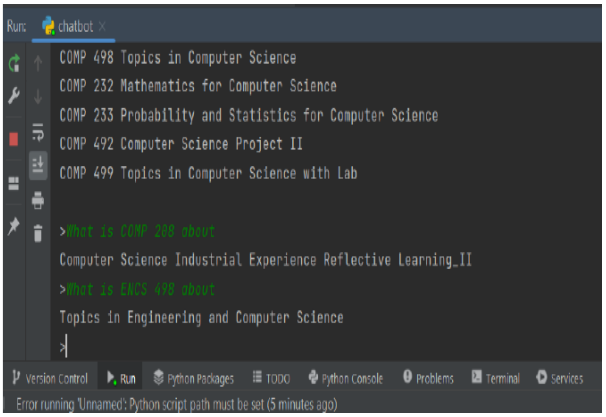
VI RESULTS









VII CONCLUSION

Fastest-growing technology in history is artificial intelligence. utilizing a database that is both artificially intelligent and knowledgeable. We are able to transform virtual aid and pattern matching. This method is creating a chatbot based on the Android operating system with the help of a virtual assistant and an artificially intelligent database. A chatbot that can distinguish between human and machine speech and answers to user enquiries is something we can make. Researchers must cooperate and decide on a common strategy in order to build a chatbot. In this study, we investigated the development of chatbots and their applications across several industries. Also, there are parallels with other chatbots. The knowledge base of the chatbot should generally be brief, approachable, and simple to understand. Even if some of the commercial solutions have just become accessible, there is still work to be done in order to discover a standard method for building chatbots. In conclusion, a chatbot system for college enquiry using a knowledgeable database can provide a convenient and efficient way for students, faculty, and other stakeholders to access information about college programs, courses, and admission requirements. By utilizing natural language processing algorithms, a knowledgeable database, and a recommendation engine, the chatbot system can generate accurate and relevant responses to user queries in a timely manner. Save timing of students and teachers and also save extra manpower. Student can see all document related college like, notice, study material, question papers etc. on time to time

and from any place. It is proper communication in between staff and students

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