COLLEGE-CHATBOT

PRESENTED BY

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PROBLEM STATEMENT

In India, parents and students frequently have trouble to find organized, trustworthy information about educational institutions, entrance requirements, and admissions processes in different states and cities.

As a student, I noticed that many of my friends and their parents struggle to get quick and clear information about colleges. So I decided to build a chatbot using Dialogflow to solve this problem to find the following:

- Top colleges by city, or state.
- Syllabus for B-TECH
- NAAC/NIRF ranking
- Cut-off scores of JEE and admission requirements.

This clever chatbot will act as a virtual advisor, easy decision-making and less time for searching data for parents, teachers, and students.

PROPOSED SOLUTION

A College Agent Chatbot created with Dialogflow is the suggested solution, helping students find reliable data , up-to-date information about colleges in various Indian states. The solution will make it overcomes the challenge of manually searching for data and we will get the required answer the short period of time compared to the manual searching.

Data Collection:

• Gather information about the colleges by state, including contact details, cut-off scores, admission requirements, autonomous status, and NAAC/NIRF rankings.

Design of Entities & Intent:

• Define entities like State , College Name,, 'NAAC`,'NIRF' and so on .

• Create intents to handle particular queries like these : "Top engineering schools in Tamil Nadu" , "What are the college rule", "List of Telangana colleges with NAAC accreditation".

Deployment:

• For smooth access, integrate the chatbot with a website application like Diaglogflow Messenger , messenger from Facebook and so on.

Evaluation:

• Evaluation of a Dialogflow-based college chatbot involves checking intent accuracy, response quality, task completion, user satisfaction, and performance analytics to ensure it meets user needs effectively.

Result:

• By instantly providing information through natural language conversations, the chatbot will act as a clever, user-friendly tool for parents and students, minimizing effort for manually searching and confusion in the college search process.

SYSTEM APPROACH

Software Requirements:

Web Browser (Chrome/Firefox) for Dialogflow console

Node.js (optional, for webhook integration)

Firebase or web server (for deployment)

Text editor (e.g., VS Code)

Libraries & Tools Required:

Dialogflow ES/ CX: For designing intents, entities, and conversational flow

Google Cloud Platform (GCP): For hosting Dialogflow agent and optional webhook services

Firebase: For chatbot deployment (web integration)

HTML/CSS/JavaScript – For embedding the chatbot into a web UI

ALGORITHM & DEPLOYMENT

The College Agent Chatbot was created using the Dialogflow platform, which uses natural language processing along with intents and entities to understand user queries. It is deployed on the web through a simple HTML file, making it easy to access and interact with.

RESULT

The created College Agent Chatbot effectively gives correct answers to user questions regarding colleges The system utilizes Dialogflow's natural language understanding feature to accept a large number of questions as follows:

* College listings state-wise

* Admission requirements and entrance exams

* Cut-off marks of JEE in different years

* NAAC and NIRF ratings

* contact information searches

The chatbot has a user-friendly interface that works on the web,making it readily available for the people .When I tested the chatbot, it answered different types of queries like college lists, cut-offs, and rankings within seconds. It felt like a smart guide doing the work for me.

RESULT

School

The best colleges in kerala are as follows: ♦ 1. Indian Institute of Management Kozhikode (IIM-K) • Premier management institute • Excellent placements and faculty • Ranked among top IIMs in India ♦ 2. National Institute of Technology Calicut (NITC) • Top engineering institute in Kerala • Strong placement record • Well-equipped labs and research facilities ♦ 3. Government Medical College, Thiruvananthapuram • Leading government medical college • High NEET cut-offs • Excellent clinical exposure ♦ 4. Cochin University of Science and Technology (CUSAT) • Offers engineering, law, management, and science programs • Good for research and innovation • Located in Kochi, Kerala's commercial hub ♦ 5. Mahatma Gandhi University

Ask something...

School

🏆 What is nirf? NIRF stands for National Institutional Ranking Framework, an initiative by the Ministry of Education, Government of India to rank higher education institutions across India. The ranking is based on several key parameters such as: Teaching, Learning & Resources (TLR) Research and Professional Practice (RP) Graduation Outcomes (GO) Outreach and Inclusivity (OI) Perception (PR) Every year, NIRF releases India Rankings under various categories like Universities, Engineering, Management, Medical, and more. 📄 PDF of NIRF Top 100 Universities (2024) You can view or download the Top 100 Universities in NIRF Ranking 2024 using the link below: https://drive.google.com/file/d/1x6xU hBSac6vLe7Mwvb6OXOOHF lvn1

Ask something...

CONCLUSION

The College Agent Chatbot effectively simplifies access to college-related information about the following:

- syllabus of B-Tech

- admissions process

- Contact information

- NAAC/NIRF ranking

Creating this chatbot was a great learning experience. It showed me how AI can really help students like me and make education information more accessible. It is a smart assistant created using the Dialogflow for natural language understanding.

FUTURE SCOPE

We can add more features in the present chatbot to make it more powerful and adaptable for the students ,parents and many others .The following features can be added

- Text-to-Speech and Speech-to-Text Integration

- Support for Multiple Languages

- Expansion of Data

- Sentiment Analysis

- Integration of Emerging Technologie

REFERENCES

I am sharing a folder which contains HTML file that, when opened and viewed in a browser using 'Go Live', will launch a chatbot on a website.

HTMLFile:
https://drive.google.com/drive/folders/1HTPbe69RsGzyYhfxWsz9YXyRJz8Yyc3q?usp=drive_link (This is a folder which contains a html file and a background image we have to download this folder and this folder in a vs code or any other and click on Go Live then the chatbot will open)

GitHub Link:

https://github.com/getstar1/College-agent (This is a GitHub link which contains the html file and a college-agent zip file which contains all entities and all the intents)

Thank you