

IBM HACKATHON PROJECT

COLLEGE ADMISSION AGENT (RAG-BASED)

Presented By:

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OUTLINE

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PROBLEM STATEMENT

The college admission process is often filled with repetitive queries from prospective students about eligibility criteria, available courses, fee structures, and important deadlines. These inquiries are typically handled through phone calls, emails, or in-person visits, which demand significant administrative effort and can lead to delays in responses, resulting in a frustrating and inefficient experience for applicants.

Proposed Solution: The proposed system provides instant and accurate admission-related responses using RAG and AI-powered conversation. It retrieves details like eligibility, fees, courses, and deadlines, processes queries through a RAG-based agent with IBM Granite, and delivers concise answers via a web or chatbot interface on IBM Cloud Lite. The system is tested with sample queries for accuracy, speed, and reliability.

TECHNOLOGY USED

IBM cloud lite services

Natural Language Processing (NLP)

Retrieval Augmented Generation (RAG)

IBM Granite model

IBM CLOUD SERVICES USED

- IBM Cloud Watsonx AI Studio
- IBM Cloud Watsonx AI runtime
- IBM Cloud Agent Lab
- IBM Granite foundation model

WOW FACTORS

Instant Query Resolution – Provides answers to admission-related questions in **seconds**, reducing manual effort.

AI-Powered Conversational Experience – Uses RAG with IBM Granite to deliver human-like, context-aware responses.

Customizable Knowledge Base – Admission staff can **update data easily** without modifying the core system.

Time & Effort Saver – **Reduces repetitive queries** for admission offices, improving operational efficiency.

END USERS

- Academic Researchers
- Research Institutions and Universities
- Industry R&D Teams
- Educators
- Students

RESULTS

Assistant



Hi! I'm CampusConnect. I search colleges, courses, fee structure and simplify your work.

Just say a 'Hi' or 'Hello'

Type something...



Assistant



You 12:33 AM

Just say a 'Hi' or 'Hello'



12:33 AM

Hello I am your college details buddy.
Can I get your name ?

You 12:33 AM

harsh



12:33 AM

Hello harsh!
Welcome to CampusConnect.

Select services here


Select an option



Type something...



RESULTS

 Assistant



Select services here

View Admission Deadlines



You 12:33 AM

View Admission Deadlines



12:33 AM

Which **course or program** do you want the deadline for?

CSE



You 12:33 AM

CSE



12:33 AM

Which college do you want to search ?

You 12:33 AM

Chandigarh University



12:33 AM

Deadline - August 1st This Year



Type something...



CONCLUSION

- The **College Admission Agent** successfully automates admission-related queries, providing **instant, accurate, and user-friendly responses** using **RAG and AI-powered conversation**.
- The system **reduces manual workload** for admission offices, **improves applicant experience**, and ensures **faster access to critical information** like eligibility, fees, and deadlines.
- With **scalability and future enhancements** such as multi-language support, voice interaction, and multi-institution coverage, the agent can evolve into a **comprehensive, next-generation admission assistant**.

GITHUB LINK

- <https://github.com/harshranjan0522/College-Admission-Agent>

FUTURE SCOPE

- Multi-Language and Voice Support
- Integration with Real-Time Portals
- Multi-Institution and Regional Expansion
- AI Enhancements and Personalization

IBM CERTIFICATIONS





THANK YOU