#### IBM HACKATHON PROJECT

# **COLLEGE ADMISSION AGENT (RAG-BASED)**

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#### **OUTLINE**

- Problem Statement
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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 Al-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 Al 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.

**Al-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.



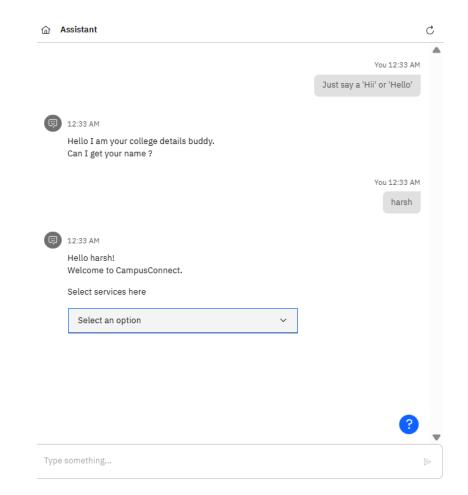
#### **END USERS**

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



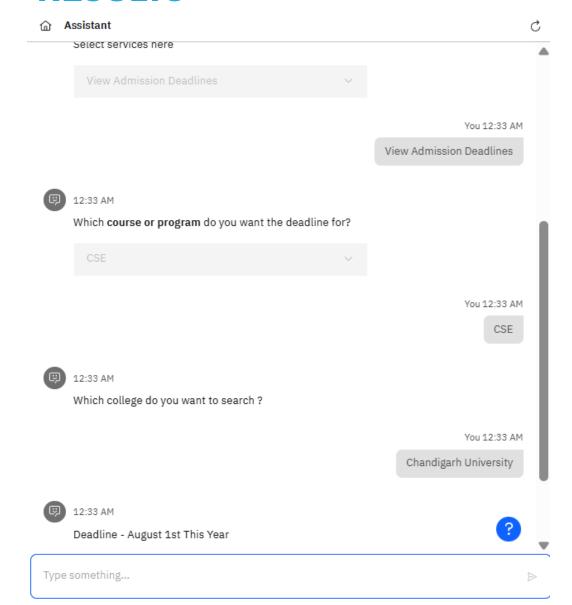
#### **RESULTS**

C Assistant Hi! I'm CampusConnect. I search colleges, courses, fee structure and simplify your work. Just say a 'Hii' or 'Hello' Type something...





#### **RESULTS**





#### CONCLUSION

- The College Admission Agent successfully automates admission-related queries, providing instant, accurate, and user-friendly responses using RAG and Al-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
- Al Enhancements and Personalization



#### **IBM CERTIFICATIONS**









### **THANK YOU**

