

# **IBM HACKATHON PROJECT**

## **COLLEGE ADMISSION AGENT**

**Presented By :**

**Student name : B. Keerthi**

**College Name & Department : Malla Reddy Engineering College For  
Women – Computer Science and Engineering**

## OUTLINE

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# PROBLEM STATEMENT

- The admission process in most colleges is often complex and time-consuming for prospective students and their parents. Information regarding courses, eligibility criteria, fee structures, and application procedures is usually spread across multiple sources, making it difficult for applicants to find accurate details quickly. This leads to confusion, repeated inquiries, and delays in decision-making.
- Manual support from admission staff is often not scalable during peak admission periods. Staff spend a significant amount of time answering the same queries repeatedly, which increases workload and reduces efficiency. There is a pressing need for a smart, automated system that can instantly respond to common admission queries while maintaining accuracy and consistency.

# TECHNOLOGY USED

- IBM Cloud Lite Plan
- IBM Watsonx Assistant (Agent AI)
- Retrieval-Augmented Generation (RAG)
- IBM Granite Model
- Vector Index
- GitHub

## IBM CLOUD SERVICES USED

- IBM Watsonx Assistant (Agent AI)
- IBM Watsonx AI Studio
- IBM Watsonx AI Runtime
- IBM Granite Model

## WOW FACTORS

- The College Admission Agent stands out as a 24/7 virtual assistant, providing students and parents with instant access to admission-related information at any time. By using Retrieval-Augmented Generation, it ensures that all responses are accurate, reliable, and taken directly from verified institutional documents.
- Its interactive and user-friendly design makes navigation simple, allowing users to quickly find details about courses, fees, eligibility, and the application process. The assistant significantly reduces the workload of college admission staff by automating repetitive queries, ensuring consistent communication with all applicants. Its scalable nature allows for future enhancements, such as multilingual support, voice integration, and real-time admission status tracking.

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## END USERS

- Prospective Students
- Parents & Guardians
- College Admission Staff

# RESULTS

The screenshot displays the IBM watsonx Agent build interface in a web browser. The browser's address bar shows the URL: `eu-gb.dataplatform.cloud.ibm.com/wx/agents/9f43fb87-9df1-4f0d-b97e-4607a1a5c787?project_id=01e4546f-b133-4231-9a43-6e57a1801d48&context=wx`. The page header includes the IBM watsonx logo, an 'Upgrade' button, a user profile for 'Bandari Keerthi's Account', and location settings for 'London'. The main navigation bar shows 'Projects / Agent\_AI / watsonx Agent' and buttons for 'Share feedback', 'New agent', and 'Deploy'.

The interface is divided into two main sections: 'Build' and 'Agent preview'.

**Build Section:**

- Model:** Set to 'mistral-large'.
- Framework:** Set to 'LangGraph'.
- Architecture:** Set to 'ReAct'.
- Instructions:** A text box contains the instruction: "You are a helpful assistant that uses tools to answer questions in detail. When greeted, say 'Hi, I am the College Admission Agent AI for Malla Reddy Engineering College for Women. How can I help you today?'".
- Knowledge:** A section for adding knowledge.
- Tools:** A section for adding tools, with buttons for 'Add a tool' and 'Create custom tool'.
- Added tools (5):** A list of added tools.

**Agent preview Section:**

- A chat interface showing a conversation between a user and the agent.
- User:** "You: 11:20 PM" with the message "hi".
- Agent:** "watsonx Agent 11:20 PM" with the response "Hi, I am the College Admission Agent AI for Malla Reddy Engineering College for Women. How can I help you today?". Below the response is a link: "► How did I get this answer?".
- Input field:** A text box at the bottom with the placeholder "Type something..." and a send button.



# RESULTS

The screenshot displays the IBM watsonx Agent AI interface. The top navigation bar includes the IBM watsonx logo, an 'Upgrade' button, a help icon, a notification bell, and user account information for 'Bandari Keerthi's Account' in 'London'. The main header shows the project path 'Projects / Agent\_AI / watsonx Agent' and a 'Deploy' button.

The interface is divided into two main sections:

- Build:** This section is used for configuring the agent. It includes:
  - Setup:** A dropdown menu for selecting the framework, currently set to 'LangGraph'.
  - Configuration:** A dropdown menu for selecting the architecture, currently set to 'ReAct'.
  - Instructions:** A text area containing the prompt: 'You are a helpful assistant that uses tools to answer questions in detail. When greeted, say "Hi, I am the College Admission Agent AI for Malla Reddy Engineering College for Women. How can I help you today?"'.
  - Knowledge:** A section for adding knowledge to the agent.
  - Tools:** A section for adding tools to the agent, with buttons for 'Add a tool' and 'Create custom tool'.
  - Added tools (5):** A list of tools currently added to the agent.
- Agent preview:** This section shows a simulated conversation with the agent.
  - User:** 'Your 11:21 PM' - 'what are the courses available'.
  - watsonx Agent 11:21 PM:** 'The courses available at Malla Reddy Engineering College for Women are:'
    - 1. B.Tech Programs**
      - Bachelor of Technology in CSE (Computer Science and Engineering)
      - Bachelor of Technology in ECE (Electronics and Communication Engineering)
      - Bachelor of Technology in IT (Information Technology)
      - Bachelor of Technology in ME (Mechanical Engineering)
    - 2. MBA Specializations**
      - MBA with specializations in Finance
      - MBA with specializations in Marketing
      - MBA with specializations in HR (Human Resources)
    - 3. B.Sc Degree Options**
      - Bachelor of Science in Mathematics

# RESULTS

The screenshot displays the IBM watsonx Agent AI interface. The top navigation bar includes the IBM watsonx logo, an 'Upgrade' button, a help icon, a notification bell, and user account information for 'Bandari Keerthi's Account' in 'London'. The main content area is divided into two panels: 'Build' on the left and 'Agent preview' on the right.

**Build Panel:**

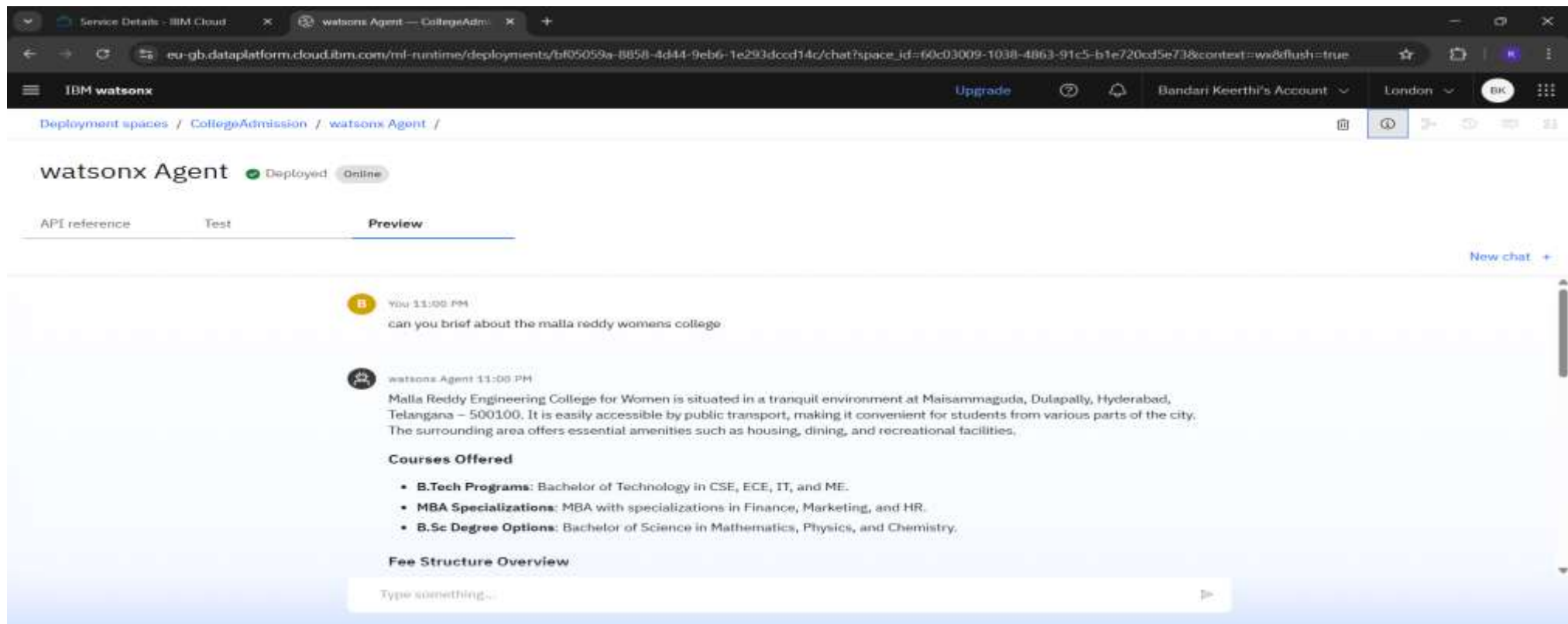
- Model:** mistral-large
- Framework:** LangGraph
- Architecture:** ReAct
- Instructions:** You are a helpful assistant that uses tools to answer questions in detail. When greeted, say "Hi, I am the College Admission Agent AI for Malla Reddy Engineering College for Women. How can I help you today?"
- Knowledge:**
- Tools:** Includes buttons for 'Add a tool' and 'Create custom tool'.
- Added tools (5):**

**Agent preview Panel:**

- How did I get this answer?**
- User Input:** You: 11:23 PM: fees details
- Agent Response:** watsonx Agent 11:23 PM: Here are the fee details for the courses offered at Malla Reddy Engineering College for Women:
  - 1. B.Tech Fees**
    - ₹50,000 per semester
  - 2. MBA Fees**
    - ₹70,000 per semester
  - 3. B.Sc Fees**
    - ₹30,000 per semester
- How did I get this answer?**
- Input field:** Type something...

# RESULTS

## Deployed AI Agent



## CONCLUSION

- The College Admission Agent AI, developed using IBM Watsonx Assistant, functions as an intelligent conversational system designed to guide prospective students through the admission process. Acting as a chatbot, it responds to queries about courses, fees, eligibility, and application procedures in real time, ensuring accurate and consistent communication.
- This Agent AI reduces manual work for admission staff, improves transparency, and enhances the overall applicant experience. With its scalable design, the Agent AI can be expanded in the future to support multilingual communication, voice-based interaction, and real-time seat availability tracking, making it even more accessible and efficient.

## GITHUB LINK

- **GitHub Repository:**

All project files (PPT, Vector Index document, screenshots, and deployment link) are available at:

<https://github.com/keerthibandari167/College-Admission-Agent-AI>

## FUTURE SCOPE

- Multilingual Support for Admission Queries
- Voice-Activated Assistance for Students
- Real-Time Integration with College Databases
- Automated Updates on Seat Availability and Deadlines
- Integration with College Website & Mobile App
- AI-Driven Personalized Course Recommendations

# IBM CERTIFICATIONS

In recognition of the commitment to achieve  
professional excellence



## Bandari Keerthi

Has successfully satisfied the requirements for:

### Getting Started with Artificial Intelligence



Issued on: Jul 15, 2025  
Issued by: IBM SkillsBuild

Verify: <https://www.credly.com/badges/957705f9-4a22-463a-855f-066dea3d74a2>



7/31/25, 6:23 PM

Completion Certificate | SkillsBuild

**IBM SkillsBuild**

Completion Certificate



This certificate is presented to  
**Bandari Keerthi**

for the completion of  
**Lab: Retrieval Augmented Generation with  
LangChain**

(ALM-COURSE\_3824998)

According to the Adobe Learning Manager system of record

**Completion date:** 24 Jul 2025 (GMT)

**Learning hours:** 20 mins





**THANK YOU**