
CAPSTONE PROJECT

COLLEGE ADMISSION AGENT

Presented By-

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College Name : MIT Academy Of Engineering, Alandi

Department : Computer Engineering

OUTLINE

- ☐ Problem Statement
- ☐ Technology used
- ☐ Wow factor
- ☐ End users
- ☐ Result
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- ☐ IBM Certifications

PROBLEM STATEMENT

Students and parents often face confusion while navigating the complex admission processes of colleges. They struggle to get accurate information about eligibility, branch cutoffs, fee structure, documents, and deadlines.

Proposed Solution:

An AI-powered **College Admission Agent**, built using **Retrieval-Augmented Generation (RAG)** and **IBM Granite**, that answers natural language queries using real-time institutional data. It enhances transparency, reduces manual inquiries, and improves the admission experience.

TECHNOLOGY USED

1. IBM cloud lite services
2. Natural Language Processing (NLP)
3. Retrieval Augmented Generation (RAG)
4. IBM Granite model
5. IBM Granite Foundation Model
6. Cloud Object Storage

IBM CLOUD SERVICES USED

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

WOW FACTORS

- * Instant, accurate answers about MITAOE admissions
- * Trained on verified institutional data only
- * Simulates LLM behavior even when model quota is exceeded
- * Bullet-proof fallback: static responses for all FAQs
- * Cutoff-based counseling logic (e.g., percentile + branch match)

END USERS

- ☐ Prospective Students
- ☐ Parents & Guardians
- ☐ Admission Counselors
- ☐ College Admin Teams

RESULTS

IBM watsonx

Projects / AI_agent / MITAOE Admission Assistant

Build

Model: mistral-large

Setup

Configuration

Framework: LangGraph

Architecture: ReAct

Instructions

You are a helpful, intelligent assistant for MIT Academy of Engineering (MITAOE), Alandi. Answer student queries about admissions, eligibility, fees, seat matrix, clubs, placements, and deadlines.

Use only the information from the vector index. Do not guess.

If the answer is not in your data, respond with:

Knowledge

Tools

Add a tool

Create custom tool

Added tools (5)

Google search


Retrieve information from the internet with the Google search engine.

Agent preview

MITAOE Admission Assistant 11:49 AM

Welcome to MITAOE Admission Assistant

Helps students with MITAOE admissions, fees, eligibility, placements, and campus queries.



Sample questions

What is the eligibility for B.Tech admission at MITAOE?

What documents are required during admission?

What is the placement record for 2025?

What are the top clubs at MITAOE?

Type something...

RESULTS

The screenshot displays the IBM watsonx AI Agent Builder interface. The top navigation bar includes the IBM watsonx logo, an 'Upgrade' button, a help icon, a notification bell, and user account information for 'Aaditya Hande's Account' in 'London'. The main header shows the project path 'Projects / AI_agent / MITAOE Admission Assistant' and a 'Share feedback' button. The interface is divided into two main sections: 'Build' on the left and 'Agent preview' on the right.

Build Section:

- Model:** mistral-large (with a warning icon)
- Setup:** A section for initial configuration.
- Configuration:**
 - Framework:** LangGraph
 - Architecture:** ReAct
- Instructions:** A text area containing the prompt: "You are a helpful, intelligent assistant for MIT Academy of Engineering (MITAOE), Alandi. Answer student queries about admissions, eligibility, fees, seat matrix, clubs, placements, and deadlines. Use only the information from the vector index. Do not guess." A link for 'Advanced configuration' is also present.
- Knowledge:** A section for adding knowledge sources.
- Tools:** Buttons for 'Add a tool' and 'Create custom tool'.
- Added tools (5):** A list of tools added to the agent.

Agent preview Section:

- User Query:** "What is the eligibility for B.Tech admission at MITAOE?"
- Agent Response:** "To be eligible for B.Tech admission at MITAOE, a candidate must meet the following criteria:"
 - The candidate should be an Indian National.
 - Must have passed HSC (12th standard) or an equivalent examination.
 - Should have secured at least 45% marks (40% for Reserved Category, EWS, or PwD candidates from Maharashtra) in the above subjects taken together.
 - Must have appeared for MHT-CET or JEE Main and obtained a valid score.
- Additional Information:** "However, simply appearing is not enough. Admission is based on the merit list and branch-wise cutoff percentile. For example, the cutoff for Computer Engineering in 2025 was approximately 95.87 percentile (General Open category, MHT-CET)."
- Input Field:** A text input field with the placeholder "Type something..." and a send button.

RESULTS : Deployed AI Agent

IBM watsonx Upgrade ? 🔔 Aaditya Hande's Account London AH

Deployment spaces / admission agent space / MITAOE Admission Assistant /

MITAOE Admission Assistant 🟢 Deployed Online

API reference Test **Preview**

New chat +

A You 12:42 PM
What is the placement record for 2025?

MITAOE Admission Assistant 12:42 PM
MITAOE recorded a strong placement performance for the academic year **2024–25**, particularly in computer-related branches.

- **Highest Package:** ₹28 LPA (AI/Product-based role)
- **Average Package:** ₹7.17 LPA across all departments
- **Placement Rate:** 90–95% of eligible students placed
- **Top Recruiters:** Infosys, Deloitte, Cognizant, Accenture, Wipro, Paytm, PhonePe, TCS, L&T
- **Internship:** mandatory internships at end of each year.

Branches like **Computer Engineering, AI & ML, Data Science, and IT** received the highest offers and salaries.

Type something...

CONCLUSION

- This RAG-based assistant simplifies college admissions by providing accurate, verified, and branch-wise data to users instantly. Even without live LLM inference, it ensures complete functionality via IBM Assistant's fallback responses.
- It bridges the communication gap between the institution and applicants - scalable across universities.

FUTURE SCOPE

- ☐ Live integration with Granite once token limits reset
- ☐ Student-specific branch prediction using scores
- ☐ Add voice support and multi-language support
- ☐ Expand to multiple colleges via PDF crawling
- ☐ Create parent version + mobile app interface

IBM CERTIFICATIONS

In recognition of the commitment to achieve
professional excellence



Aaditya Hande

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/232934c9-dcf7-43bd-9e3e-f209640bf4d7>



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IBM CERTIFICATIONS

SkillsBuild

Completion Certificate



This certificate is presented to

Aaditya Hande

for the completion of

**Lab: Retrieval Augmented Generation with
LangChain**

(ALM-COURSE_3824998)

According to the Adobe Learning Manager system of record

ion date: 17 Jul 2025 (GMT)

Learning hours

Github link :

[College Admission Agent](#)



THANK YOU