IBM HACKATHON PROJECT

INTERVIEW TRAINER AI AGENT

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TECHNOLOGY: Computer Science and Engineering



OUTLINE

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PROBLEM STATEMENT

Challenge:

Many job seekers struggle to prepare for interviews effectively due to limited access to tailored resources.

Existing tools often lack personalization, industry relevance, and real-time updates.

Proposed Solution:

An Al Interview Trainer Agent that uses NLP and RAG on IBM watsonx.ai to:

Generate role-specific interview questions.

Provide model answers and improvement tips.

Retrieve latest industry-specific trends and expectations.



TECHNOLOGY USED

IBM cloud lite services

Natural Language Processing (NLP)

Retrieval Augmented Generation (RAG)

IBM Granite Foundation model



IBM CLOUD SERVICES USED

- IBM watsonx.al Studio (Agent building & configuration).
- IBM Watsonx.al runtime.
- IBM Cloud Object Storage (Lite plan).
- Agent Lab for asset creation & deployment .



WOW FACTORS

Personalized question sets based on user profile.

Model answers & improvement tips.

Real-time knowledge retrieval using integrated tools (Google, Wikipedia, DuckDuckGo).

Vector-indexed documents for deep domain-specific grounding.

Supportive, confidence-building feedback.

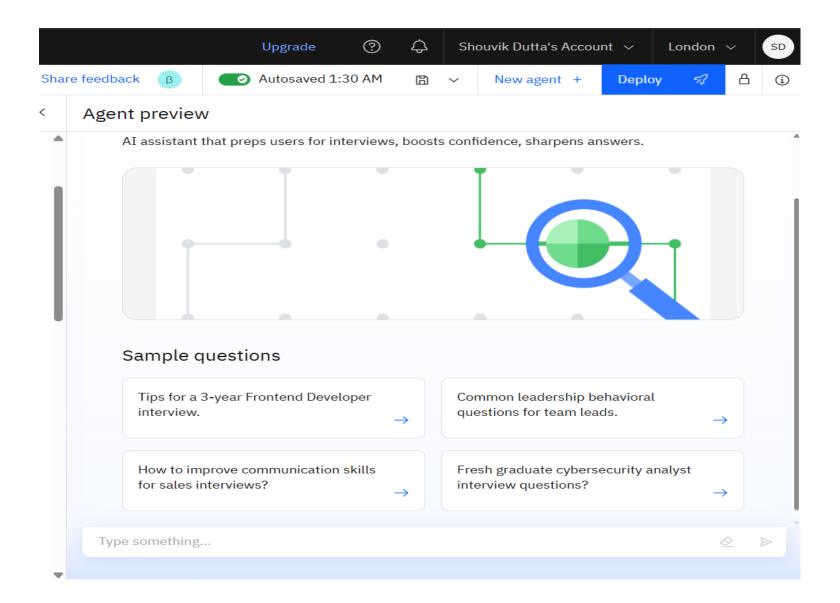


END USERS

- Job Seekers(freshers & experienced professionals).
- Career Counsellors & Training Institutes.
- Universities & Placements cells
- HR Teams conducting mock interviews.

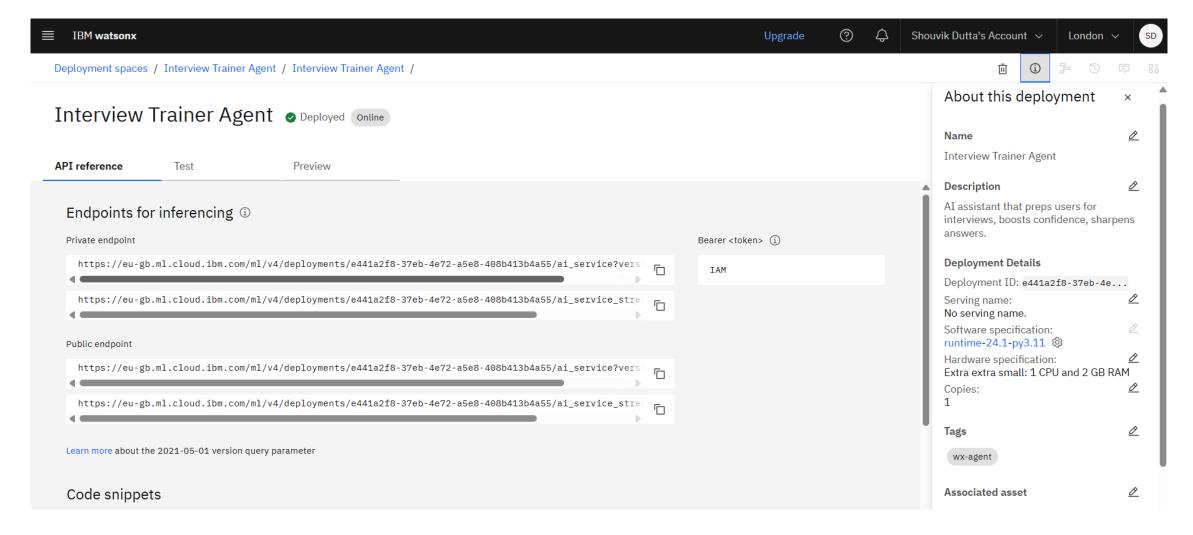


RESULTS





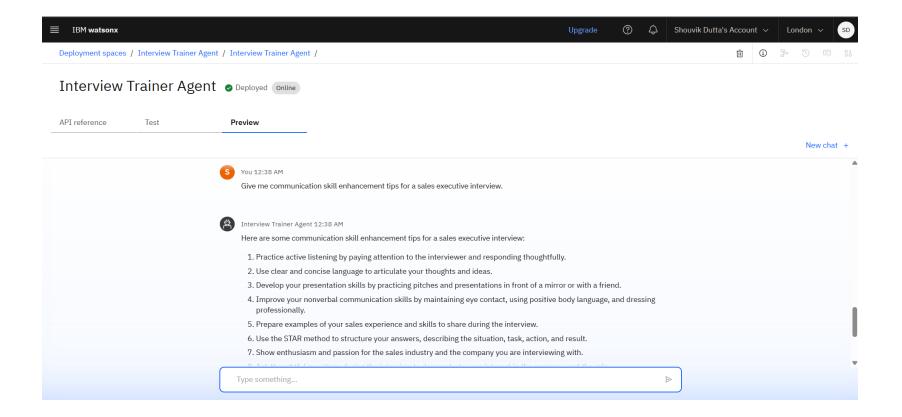
API REFERENCE AFTER DEPLOYMENT





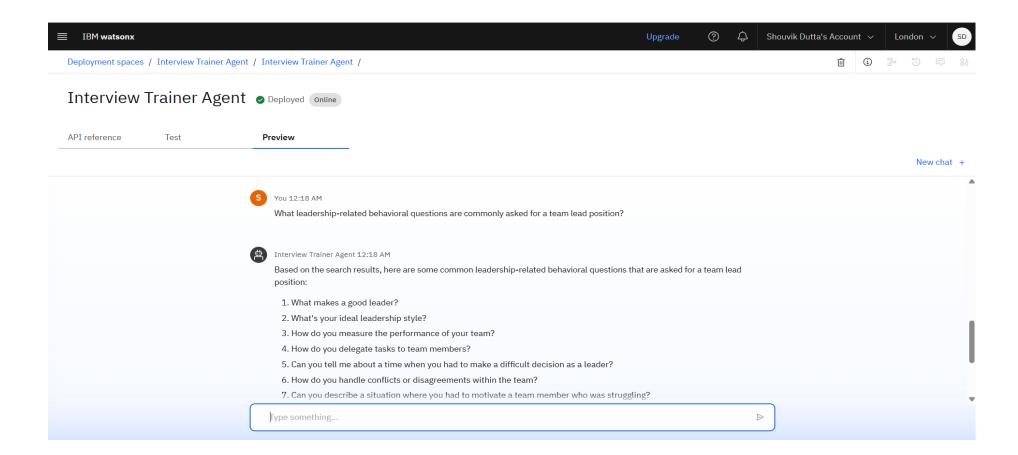
RESULTS

Deployed AI Agent





RESULTS





CONCLUSION

- Reduces preparation time significantly.
- Boosts candidate confidence & performance.
- Scalable for universities, corporates, and training institutes.
- Can be enhanced with voice-based interactions.



GITHUB LINK

https://github.com/Shouvik-9/INTERVIEW-TRAINER-AI-AGENT-IBM-PROJECT.git



FUTURE SCOPE

- Multilingual Support
- Voice-based interactions.
- Real-Time Collaboration (group mock interviews).
- Research Gap and Novel Topic Identification
- Integration with LinkedIn& other job portals for tailored feedback.



IBM CERTIFICATIONS

In recognition of the commitment to achieve professional excellence Shouvik Dutta Has successfully satisfied the requirements for: Getting Started with Artificial Intelligence Issued on: Jul 17, 2025 Issued by: IBM SkillsBuild Verify: https://www.credly.com/badges/fd9fb652-0604-4a43-97ab-ec1218bf87e6



IBM CERTIFICATIONS





IBM CERTIFICATIONS

04/08/2025, 01:02

Completion Certificate | SkillsBuild

IBM SkillsBuild

Completion Certificate



This certificate is presented to

Shouvik Dutta

for the completion of

Lab: Retrieval Augmented Generation with LangChain

(ALM-COURSE_3824998)

According to the Adobe Learning Manager system of record

Completion date: 18 Jul 2025 (GMT)

Learning hours: 20 mins



THANK YOU

