
IBM EDUNET CAPSTONE PROJECT

INTERVIEW TRAINER AI AGENT

Presented By:-

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OUTLINE

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PROBLEM STATEMENT

Interview preparation is often overwhelming, particularly for job seekers unfamiliar with targeted question sets and expectations. Most candidates rely on generic content that lacks relevance to their specific role or experience level, resulting in underprepared interviews and low confidence.

Proposed Solution:

A smart AI-powered Interview Trainer Agent that leverages advanced Natural Language Processing (NLP) and Retrieval-Augmented Generation (RAG) techniques to create an adaptive and personalized coaching experience. It offers role-specific interview questions, structured responses, skill-focused advice, and guided practice using proven frameworks like STAR.

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

This agent reshapes interview readiness into an interactive, customized training session using state-of-the-art AI. It drastically cuts down the preparation effort while boosting user preparedness.

Standout Features:

- *Dynamic Question Crafting*: Adjusts to each user's role, industry, and experience.
- *Comprehensive Topic Coverage*: From technical know-how to soft skills, users get a 360° prep.
- *Guided Answers with STAR*: Offers sample responses framed using the STAR method.
- *Knowledge-Rich Grounding*: Pulls from curated resources and RAG to provide focused, up-to-date content.
- *Coaching-Focused Feedback*: Offers tips to refine answers and strengthen delivery.
- *Confidence-Building Platform*: Acts as a risk-free environment for practice and improvement.

END USERS

- Fresh Graduates & Students – Preparing for internships or their first job interviews.
- Working Professionals – Enhancing their interview skills for job changes or promotions.
- Career Transitioners – Switching fields and needing tailored prep.
- Educational Institutions – Offering the agent as a support tool through career cells or placement services.

RESULTS

Agent preview



Interview Trainer AI Agent 10:12 PM

Welcome to Interview Trainer AI Agent

An AI-driven assistant that prepares users for job interviews and sharpens responses



Sample questions

Help me prepare for a Java Backend Developer interview with 4 years of work experience.



List some typical situational interview questions for a team leader in the IT sector.



Share communication and collaboration improvement tips for a sales executive interview.



As a recent graduate aiming for a business analyst role, what interview questions might I face?



Type something...



RESULTS

Agent preview

 You: 09:02 PM

As a recent graduate aiming for a business analyst role, what interview questions might I face?

 Interview Trainer AI Agent 09:02 PM

As a recent graduate aiming for a business analyst role, you might face interview questions such as:

- What is the company culture like?
- What are the company's biggest goals for the next year?
- What opportunities are there for professional development and growth in this role?
- Explain design patterns you have used in your projects (e.g., Singleton, Factory).
- What is the difference between INNER JOIN, LEFT JOIN, and RIGHT JOIN in SQL?
- How would you handle missing data in a dataset?
- What is a Key Performance Indicator (KPI)? Give an example relevant to our business.
- Explain what a primary key is in a database.
- Describe the process of A/B testing from hypothesis to conclusion.
- What are the main differences between Tableau and Power BI?
- Explain statistical concepts like p-value and confidence interval.
- How would you design an ETL pipeline for a new data source?
- What is the difference between a data warehouse and a data lake?
- Describe a time you used data to influence a major business decision.

It's also important to be prepared to ask questions to the interviewer about the role, team, or company culture. Some examples of questions you could ask include:

- What are the biggest challenges facing the team or department right now, and how do you see this role contributing to addressing them?
- Can you tell me more about the company culture and values, and how they impact the way the team works?
- What opportunities are there for professional development and growth within the company?
- How does the company approach innovation and staying ahead of the curve in the industry?
- What is the typical career path for someone in this role, and how have past employees in this role progressed within the company?

Remember to research the company and the role beforehand, and to be prepared to talk about your skills and experiences in relation to the job description. Good luck with your interview!

► How did I get this answer?



Type something...



RESULTS

Agent preview



You: 09:00 PM

List some typical situational interview questions for a team leader in the IT sector.



Interview Trainer AI Agent 09:00 PM

Here are some typical situational interview questions for a team leader in the IT sector:

1. How do you resolve conflicts within your project team?
2. What is the difference between project management and program management?
3. How do you ensure your project aligns with the company's strategic goals?
4. Describe your leadership style and how you motivate your team.
5. How would you explain a complex technical problem to a non-technical stakeholder?
6. Describe a time you collaborated on a project that had a successful outcome.
7. Walk me through your process for troubleshooting an unexpected issue.
8. Tell me about a time when a project's priorities changed suddenly. How did you adapt?
9. Describe a situation where you took initiative to lead a project or task without being asked.

These questions are designed to assess the candidate's leadership skills, problem-solving abilities, and experience in managing projects and teams in the IT sector.

► How did I get this answer?



RESULTS

Deployed AI Agent:

Interview Trainer AI Agent ✓ Deployed Online

API reference

Test

Preview



Interview Trainer AI Agent 10:16 PM

Welcome to Interview Trainer AI Agent

An AI-driven assistant that prepares users for job interviews and sharpens responses



Type something...



CONCLUSION

- The Interview Trainer Agent effectively addresses individual preparation needs by delivering targeted content through AI. Leveraging IBM Granite models, NLP, and RAG techniques on watsonx.ai
- It provides comprehensive coaching that boosts confidence and improves outcomes for job seekers.
- The solution stands out for its personalization, structure, and accessibility—all crucial in today's competitive hiring landscape.

GITHUB LINK

- Github repo link: <https://github.com/Sayantanpoddar/Interview-Trainer-Agent>

FUTURE SCOPE

- *Speech Simulation*: Add voice interaction for real-time interview simulation and tone analysis.
- *Resume-Driven Prep*: Upload resumes to customize questions and suggestions.
- *Job-Specific Customization*: Extract job role insights from platforms like LinkedIn or Naukri.
- *Progress Tracking*: Offer session-wise analytics and improvement summaries.
- *Enterprise Integration*: Make it deployable for HR and talent acquisition tools.

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In recognition of the commitment to achieve
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Has successfully satisfied the requirements for:

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Completion Certificate



This certificate is presented to

Sayantan Poddar

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