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# **CAPSTONE PROJECT**

## **INTERVIEW TRAINER AGENT**

**Presented By:**

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**Department : CSE**

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## **OUTLINE**

- **Problem Statement**
- **Technology Used**
- **Wow Factor**
- **End Users**
- **Results**
- **Conclusion**
- **GitHub Link**
- **Future Scope**
- **Certifications**

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# PROBLEM STATEMENT

- Many students and job seekers struggle with interview preparation due to a lack of personalized guidance, industry-specific questions, and confidence-building resources.
- They often rely on random internet material or outdated question banks that fail to simulate real-world interviews.
- **Proposed Solution:**
- An AI-powered Interview Trainer Agent that uses Natural Language Processing (NLP) and Retrieval-Augmented Generation (RAG) to provide customized interview questions, simulate mock interviews, and generate tailored preparation strategies based on user profiles.

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## ◆ TECHNOLOGY USED

- OpenAI GPT (or Gemini, etc.)
- Retrieval-Augmented Generation (RAG)
- Node.js (Backend API)
- React / HTML-CSS (Frontend)
- MongoDB (User Profile Management)

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## WOW FACTOR

This agent doesn't just give questions—it becomes a virtual interview coach. It auto-generates:

Role-specific technical and HR questions

- Behavioral assessments
- Suggested answers and evaluation
- Personalized study plan
- Confidence-building tips

All this based on your resume, job role, and experience level.

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## ◆ END USERS

- Final year college students
- Freshers preparing for campus placements
- Professionals applying to new roles
- Interview mentors & trainers
- Hackathon participants
- EdTech platforms

# RESULTS

cts / Interview Trainer SuperAgent / Agent Lab

build

AI Model: granite-3-3-8b-instruct

## Setup

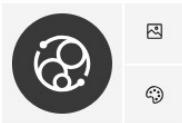
Name

Interview Trainer Agent

Description

You are an expert interview trainer AI.

Icon



Placeholder image



Quick start questions

Add up to 4 quick start questions that your users can select.

Share feedback

β

Autosave on



New agent +

Deploy



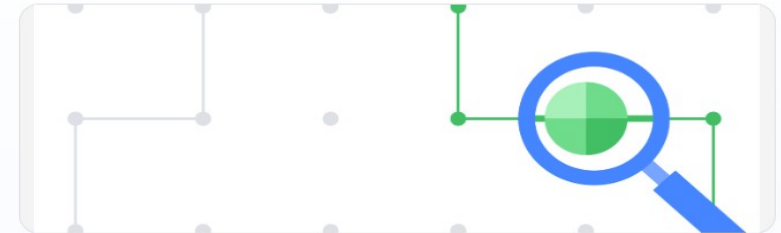
## Agent preview



Interview Trainer Agent 11:24 PM

Welcome to Interview Trainer Agent

You are an expert interview trainer AI.



Type something...



# RESULTS

Projects / Interview Trainer SuperAgent / Agent Lab

Share feedback β Unsaved 📁 ▼ New agent + Deploy 🚀

Build

AI Model: granite-3-3-8b-instruct 🔄 <

Framework

LangGraph ▼

Architecture

ReAct ▼

Instructions

Advanced configuration

You are an expert interview trainer AI.  
Based on the candidate profile below, generate:  
1. 5 technical questions with model answers.  
2. 3 behavioral interview questions with guidance.  
3. 2 HR questions with suggested responses.

Knowledge

▼

Tools

^

Add a tool

Create custom tool

Added tools (1)

Google search

⚙️ 🗑️

Retrieve information from the internet with the Google search engine.

Agent preview

👤 You: 11:15 PM

what is important interviews questions

🤖 Interview Trainer Agent 11:15 PM

As an expert interview trainer AI, I can guide you on the types of questions that are typically asked in interviews, categorized into technical, behavioral, and HR questions. Here are some tailored to a `{{job_role}}` with `{{experience}}` level experience, based on the provided resume summary `{{resume_text}}`.

1. Technical Questions with Model Answers:

Q1: Can you explain how you would implement a RESTful API for a user authentication system? A: The candidate should discuss the use of HTTP methods (GET, POST, PUT, DELETE), status codes, and security measures like OAuth or JWT for token-based authentication. They might also mention the importance of input validation and error handling.

Q2: How do you ensure data consistency in a distributed database system? A: The candidate should talk about strategies such as eventual consistency, two-phase commit protocol, or using a distributed database that inherently provides strong consistency. They might also mention the trade-offs between consistency, availability, and partition tolerance (CAP theorem).

Q3: Describe your experience with containerization technologies like Docker and orchestration tools like Kubernetes. A: The candidate should detail their hands-on experience with Docker for container creation and management, and Kubernetes for automating deployment, scaling, and operations of application containers

type something...

🗨️ ➤

edunet  
foundation



# RESULTS

## Agent preview

HV You: 11:25 PM

give me common interview questions

Interview Trainer Agent 11:25 PM

As an Interview Preparation Assistant, I can provide you with a general set of common interview questions categorized into technical, behavioral, and HR-related sections. However, to tailor the preparation strategy specifically for your role and experience level, please share your resume or job description.

Here's a generic list to get us started:

**Technical Questions:** (These will vary greatly depending on the specific role)

1. Can you describe a challenging project and how you overcame its obstacles?
2. What programming languages are you proficient in? Could you walk me through [specific language/technology]?
3. How do you approach problem-solving when debugging code?

**Behavioral Questions:** (Focus on past behaviors as indicators of future performance)

1. Tell me about a time when you faced significant challenges at work and how did handle them?
2. Describe a situation where you had to make use of your team's strengths to complete a task successfully?
3. Give an example of leadership experience – what was your goal, action plan, and outcome?

Type something...

**HR Guidelines & Industry Expectations:** (Vary by industry but often include)

- Why do you want to work here / in this industry/role?
- What are your long term career goals?
- How would others describe working with you?
- Discuss any relevant skills related to soft skills like communication or adaptability that pertain to the job description

**Sample Model Answers:** For Behavioral Question "Tell me about yourself": A good answer should ideally cover personal background briefly tying it into professional experiences most relevant for the position applied for without going beyond two minutes maximum detailing achievements rather than responsibilities from previous roles which might showcase versatility across diverse tasks if applicable otherwise stick strictly onto professional history aligning skillset required per job specification ensuring relevance throughout narration ending positively highlighting enthusiasm towards new opportunity expressing eagerness learn grow within organization cultivate contribute company success

Remember these answers need customization based upon actual job descriptions provided during our interaction so feel free ask follow up queries specifying details needed!

► How did I get this answer?

Type something...

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## ◆ CONCLUSION

- The Interview Trainer Agent provides a unique blend of AI and domain knowledge to assist job seekers.
- It simulates realistic interviews, improves confidence, and gives structured preparation guidance.
- Highly scalable across multiple industries and user levels.

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## ◆ FUTURE SCOPE

- Integration with voice-based Q&A (Mock speaking)
- Real-time facial expression analysis during mock tests
- Hindi and regional language support
- Company-specific interview simulations
- Dashboard for mentors/teachers to track student prep

# IBM CERTIFICATIONS

In recognition of the commitment to achieve  
professional excellence



## Harsh Vishwakarma

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### Getting Started with Artificial Intelligence



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

Verify: <https://www.credly.com/badges/76212ed3-2b56-4304-ab67-eb441c017d90>



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### Journey to Cloud: Envisioning Your Solution

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# IBM CERTIFICATIONS

IBM **SkillsBuild**

Completion Certificate



This certificate is presented to

Harsh Vishwakarma

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

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## GITHUB LINK

GitHub Link : [https://github.com/Harshvish26/Interview\\_Trainer\\_Agent/](https://github.com/Harshvish26/Interview_Trainer_Agent/)



**THANK YOU**