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# CAPSTONE PROJECT

## CAREER\_BUDDY AI AGENT

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# OUTLINE

- Problem Statement
- Technology used
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- Result
- Conclusion
- Git-hub Link
- Future scope
- IBM Certifications

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# PROBLEM STATEMENT

Students struggle with confusing career advice, unclear strengths, and fast-changing job markets. Traditional counseling often lacks personalization and scalability. There's a need for a smart, autonomous system that offers simple, tailored, and timely career guidance to help students decide confidently.

## Proposed Solution:

An AI career counselor that tracks students' progress, interests, and job trends to give personalized, clear advice and actionable steps—helping them confidently plan future careers with little help.

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# TECHNOLOGY USED

IBM cloud lite services

Natural Language Processing (NLP)

Retrieval Augmented Generation (RAG)

Prompt-based AI technology for conversational flows

IBM Granite model

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## IBM CLOUD SERVICES USED

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

# WOW FACTORS

Designed to help students confidently navigate career choices, this AI agent offers personalized, data-driven guidance anytime. It continuously adapts to your progress and the changing job market to give the right advice when you need it most.

## Career Buddy: What Makes It Special

- **Gets You:** Career Buddy listens closely to your unique questions and gives genuinely personalized advice—made possible by smart Granite AI models.
- **Always There:** Need help at midnight or before an interview? Career Buddy is available anytime on IBM Cloud, offering instant support whenever you need it.
- **Smart, Practical Answers:** It doesn't just guess—it uses your progress, interests, and real job market trends to share real-world, actionable guidance that fits your goals.
- **Effortless for Everyone:** Thanks to IBM Cloud's power, you and many others get smooth, secure career help without delays, making expert advice easy and accessible.

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## END USERS

- Students
- Job seekers and early-career professionals
- Career counselors and educational institutions
- Parents and guardians
- Lifelong Learners and Upskillers

# RESULTS

Here's how Career Buddy, your IBM Cloud-powered AI agent, performs in action:

- Career Buddy quickly provides personalized career advice tailored to your unique needs.
- It offers motivation and encouragement to boost your confidence.
- The agent delivers clear, real-time, actionable guidance based on your background and job trends.
- Runs smoothly and reliably, supporting many users simultaneously without delays.

## Agent preview

 Career\_Buddy 12:33 AM

Welcome to Career\_Buddy

Personalized, proactive career guidance—matching your strengths to real-world opportunities, always.



Type something...



# RESULTS

Our Career Buddy agent is fully operational, responding instantly to a wide variety of career-related questions. It understands and provides clear, personalized guidance, helping users explore career paths, build skills, and plan confidently. It delivers real-time, relevant answers without delay, proving its reliability and effectiveness in real-world career support.

## Agent preview



You: 12:33 AM

tell me about career after taking pcm in class 10th



Career\_Buddy 12:33 AM

Hi, I am Career Buddy. How can I help you?

Taking Physics, Chemistry, and Mathematics (PCM) in your class 10th opens up a wide range of career options for you. Here are some popular paths:


1. **Engineering:** PCM is the most common combination for students who aspire to become engineers. You could specialize in fields like Computer Science & Engineering, Mechanical Engineering, Electronics & Communication Engineering or Civil Engineering among others based on your interests and aptitude tests' results such as JEE Main/Advanced for Indian students or similar exams globally like SAT Subject Tests or International Baccalaureate (IB).
2. **Medical Field:** If you're interested in medicine-related careers after further studies post +2 level such as MBBS or BDS course which requires Biology along with Physics and Chemistry during Class 10+2; however if we strictly consider PCM then it's more aligned towards Non-Biological streams like AIIMS Entrance Exam preparation where Math plays a crucial role apart from Physics and Chemistry.
3. **Data Science / Analytics:** With an increasing demand for data scientists across industries worldwide due to digital transformation trends; strong foundation provided by PCM subjects proves beneficial here too especially Mathematics being pivotal in this field coupled with growing importance of Statistics often taught within high school curriculum following PCM streamline education pathway leading into undergraduate courses focusing on Data Science specifically designed programs at various universities globally including

Type something...




# RESULTS

Here, we observe that the agent responds exclusively to relevant career-related questions, ignoring unrelated queries.

 You: 12:24 AM

tell me about travelling to mumbai

 Career\_Buddy 12:24 AM


I apologize for any misunderstanding, but as a Career Counseling Companion, I'm specifically designed to provide advice and information related to career development and educational pathways. I don't have the capability to provide travel advice or details about traveling to Mumbai. I can, however, help you explore career opportunities in Mumbai or discuss how diverse experiences, including work or study abroad, can contribute to personal and professional growth. If you have any career-related questions or need guidance on engineering careers in Mumbai, I'm here to help.

► How did I get this answer?

## Agent preview

 You: 12:34 AM

tell me more about engineering

 Career\_Buddy 12:34 AM

Hi, I am Career Buddy. How can I help you?

Engineering is a diverse field with numerous specializations catering to different interests and societal needs. Here's an overview of some popular engineering disciplines:

- 1. Computer Science & Engineering (CSE):** This branch deals with the design and application of computer systems including hardware, software, networks, databases etc., focusing on algorithmic thinking and programming skills. With rapid advancements in technology such as AI/ML, IoT driving digital transformation across sectors globally; CSE graduates are highly demanded by tech giants like Google, Microsoft for developing cutting-edge technologies or product management roles while also contributing significantly within non-tech industries seeking digitization solutions .
- 2. Mechanical Engineering (ME):** ME involves principles from mechanics, kinematics, thermodynamics applying them towards designing machines structures vehicles engines etc.. It provides foundational knowledge applicable broadly making it versatile yet allowing specialization areas e.g., automotive manufacturing renewable energy systems robotics biomechanics etc.. Given ongoing trends emphasizing automation Industry 4.0 smart factories augmented realities mechatronics engineers find ample opportunities both domestically internationally particularly those inclined toward research development aspects fostering innovation .

According to recent labor market reports highlighting steady growth rates coupled robust job security

Type something...



# RESULTS

## Deployed AI Agent

IBM watsonx

Upgrade ? Bell

Manasvi Goel's Account Dallas MG

[Deployment spaces](#) / [Career\\_Buddy](#) / [Career\\_Buddy](#) /

Career\_Buddy

Deployed Online

API reference

Test

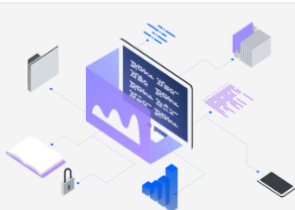
Preview

New chat +

Career\_Buddy 01:17 AM

Welcome to Career\_Buddy

Personalized, proactive career guidance—matching your strengths to real-world opportunities, always.



type something... >

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## CONCLUSION

- Delivers clear, personalized career guidance by understanding unique user needs and real-time job trends.
- Provides practical, actionable advice that helps users confidently plan their career steps.
- Operates autonomously with fast, reliable responses tailored to relevant career queries only.
- Continuously improves through learning, ensuring up-to-date and effective support for all users.

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# FUTURE SCOPE

- AI-Powered Skill Gap Analysis
- Personalized Career Roadmaps
- Integration with Learning Platforms
- Advanced Analytics Dashboard
- Multi-Channel Support
- User Feedback Loop

# IBM CERTIFICATIONS

## Getting Started With Artificial Intelligence



# IBM CERTIFICATIONS

## Journey to Cloud : Envisioning Your Solution



RAG LAB certificate :





Git hub link : [https://github.com/Manasvi00/Career\\_Buddy](https://github.com/Manasvi00/Career_Buddy)

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## GITHUB LINK

- [https://github.com/Manasvi00/Career\\_Buddy](https://github.com/Manasvi00/Career_Buddy)



**THANK YOU**