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# **IBM AICTE PROJECT**

## **CAREER COUNSELOR RURAL YOUTH AI AGENT**

**Presented By :**

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**AICTE ID : STU681daf1111dae1746775825**

# OUTLINE

- Problem Statement
- Technology used
- Wow factor
- End users
- Result
- Conclusion
- Git-hub Link
- Future scope
- IBM Certifications

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# AI CAREER COUNSELOR RURAL YOUTH

Youth in rural areas often lack access to structured career guidance due to limited exposure, absence of professional counselors, and poor awareness of skill development opportunities. Many students are unaware of job-oriented courses, government schemes, or online training platforms that could help them build a career aligned with their interests.

Traditional methods of career counseling are not scalable and fail to reach underserved communities, contributing to skill mismatch, underemployment, and loss of potential.

There is a strong need for a smart, localized, and accessible solution that can provide personalized career guidance to rural youth based on real-time, trusted information.

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# 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

**AI-Powered Personalized Guidance** Your intelligent agent offers career counseling tailored to rural youth, guiding them through job-oriented courses, competitive exams, and government programs in real time.

**Study Companion for National Exams** From NEET, JEE, GATE, CAT to CET, the agent helps students plan, track, and optimize their preparation with time-effective study schedules, mock test strategies, and learning resources.

**Gateway to Opportunities** Empowers users to discover and apply for:

- Government schemes
- Scholarships & internships
- Skill development programs
- Small business support (e.g., MUDRA Yojana)

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## WOW FACTOR

Accessible, Scalable & Cost-Efficient Built using IBM Cloud Lite and Granite models, this solution ensures low-cost deployment and scalability, bridging the urban-rural career divide with zero infrastructure burden.

Agentic AI, Local Impact A real example of Agentic AI solving ground-level challenges — enabling self-directed, context-aware decision-making for the most underserved segment: rural youth

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## END USERS


- School Students
- College Students
- Job Seeking Graduates
- Educators





# RESULTS







IBM watsonx



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Sanjeevni Raj's Account 

Dallas 



[Deployment spaces](#) / [Career\\_Counselor](#) / [CareerCounselor](#) /      

CareerCounselor  Deployed 

API reference

Test


Preview

New chat +

CareerCounselor 08:44 AM


Welcome to CareerCounselor

CareerCounselor is an AI-powered assistant that provides personalized career guidance to rural youth






Quick start samples







Type something...



# RESULTS

 IBM watsonx


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Deployment spaces / Career\_Counselor / CareerCounselor /      

## CareerCounselor Deployed Online

API reference Test **Preview**

New chat +


 You 08:43 AM

2. Which government schemes or skill development programs can I apply for?


CareerCounselor 08:43 AM





The government schemes or skill development programs that can be applied for include:







1. Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) - provides skill development training linked with guaranteed employment for rural youth aged 15-35 from poor families.
2. Pradhan Mantri Kaushal Vikas Yojana (PMKVY) - encourages aptitude-based skill training and entrepreneurship for school/college dropouts and unemployed youth.
3. National Apprenticeship Promotion Scheme (NAPS) - promotes apprenticeship training in industries for 10th and 12th pass candidates.
4. MUDRA Yojana - offers collateral-free loans for youth starting small businesses.
5. Mahila Coir Yojana - trains rural women in coir product manufacturing.




# RESULTS

 IBM watsonx

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CareerCounselor  Deployed Online

API reference Test **Preview**

New chat +


S You 08:45 AM

Please make a proper study plan for me to crack CAT Exam in 6 months

CareerCounselor 08:45 AM

To create a proper study plan for cracking the CAT Exam in 6 months, consider the following steps:

- 1. Divide your study period into phases:** Allocate the first two months for building your basics in Quant, Verbal, and Data Interpretation. The next two months can be dedicated to practicing and revising the concepts. The final two months should focus on mock tests and exam-taking strategies.
- 2. Create a study schedule:** Plan out how many hours you will study each day and which topics you will cover. Make sure to include breaks and time for revision.
- 3. Use study materials and resources:** Utilize study materials such as textbooks, online courses, and practice tests to help you prepare. You can also join a study group or find a study buddy to stay motivated.

Type something... 

# RESULTS

## Deployed AI Agent

The screenshot displays the IBM watsonx interface for the CareerCounselor AI agent. The top navigation bar includes the IBM watsonx logo, an 'Upgrade' button, and user account information for 'Sanjeevni Raj's Account' in 'Dallas'. The breadcrumb trail shows the path: 'Deployment spaces / Career\_Counselor / CareerCounselor /'. The main header for the agent is 'CareerCounselor', with status indicators 'Deployed' (green checkmark) and 'Online' (grey pill). Below this are tabs for 'API reference', 'Test', and 'Preview', with 'Preview' being the active tab. The preview area features a 'New chat +' button and a header image with icons representing a document, a bar chart, and a smartphone. Under the heading 'Quick start samples', there are four sample prompts, each with a right-pointing arrow: 1. 'What career options are best for me after 12th?', 2. 'Which government schemes or skill development programs can I apply for?', 3. 'I want to start a small business. Can you guide me?', and 4. 'Help me prepare for government job exams.' At the bottom, there is a text input field with the placeholder 'Type something...' and a send button.

IBM watsonx Upgrade ? Sanjeevni Raj's Account Dallas SR

Deployment spaces / Career\_Counselor / CareerCounselor /

CareerCounselor ✓ Deployed Online

API reference Test **Preview**

New chat +

Quick start samples

- 1.What career options are best for me after 12th? →
- 2. Which government schemes or skill development programs can I apply for? →
- 3.I want to start a small business. Can you guide me? →
- 4.Help me prepare for government job exams. →

Type something... ➤

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## CONCLUSION

- Bridging the Divide: Our AI Career Counselor tackles the urban-rural career divide, offering an accessible and cost-effective solution for underserved youth.
- Powered by IBM: Built on IBM Cloud Lite, NLP, RAG, and the Granite model, the platform provides scalable and intelligent guidance.
- Personalized Guidance: The AI agent offers real-time, tailored advice on career paths, competitive exams (NEET, JEE, CAT), and government programs.
- Comprehensive Support: It acts as a study companion for exam preparation and a gateway to opportunities, including scholarships, internships, and government schemes like MUDRA Yojana.
- Empowering Youth: This "agentic AI" solution provides a self-directed, context-aware tool that empowers rural youth to make informed decisions and unlock their potential.

## GITHUB LINK

- Make sure that there should be readme file

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# FUTURE SCOPE

- Expanded Opportunity Gateways
- Interactive Mentorships
- Predictive Market Insights
- Advanced Personalization
- Multilingual Interface

# IBM CERTIFICATIONS

- Screenshot/ credly certificate( getting started with AI)





Attach your RAG LAB certificate here

IBM **SkillsBuild**

Completion Certificate



This certificate is presented to

Sanjeevni Raj

for the completion of

## Lab: Retrieval Augmented Generation with LangChain

(ALM-COURSE\_3824998)

According to the Adobe Learning Manager system of record

**Completion date:** 23 Jul 2025 (GMT)

**Learning hours:** 20 mins



**THANK YOU**