
CAPSTONE PROJECT

CAREER COUNSELOR

Presented By:

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Computer Science

OUTLINE

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

PROBLEM STATEMENT

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.

TECHNOLOGY USED

IBM cloud lite services

Retrieval Augmented Generation (RAG)

IBM Granite model

IBM CLOUD SERVICES USED

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

WOW FACTORS

Delivers instant, customized career suggestions based on each youth's interests, education level, and education.

Available anytime, anywhere—even in remote villages—supporting local languages for better understanding and inclusivity.

Low Bandwidth & Mobile Friendly: Designed to work smoothly on basic smartphones with minimal data usage, making it ideal for rural settings.

Connects youth directly to government initiatives, online courses, scholarships, and nearby vocational centers using live, verified data.

Data-Driven Insights for Policymakers: Aggregated, anonymized data from user queries can help governments identify regional demand for jobs and training.

Bridges the gap between local aspirations and available opportunities, directly addressing underemployment in rural areas.

END USERS

- Rural Students (Classes 9–12 & Dropouts)
- College Students in Rural Areas
- Unemployed or Underemployed Rural Youth
- Parents & Guardians
- Mobile App Developers & EdTech Platforms
- School Teachers & Principals

RESULTS

← → ↺

datapatform.cloud.ibm.com/wx/agents?context=wx&project_id=28122e6f-0501-4dad-a2f6-738c3a780dc4

☆ R ⋮

☰ IBM watsonx

Upgrade ⓘ 🔔

Raga priya Konanki's Acco... ▾

Dallas ▾

RK

Projects / Career Counselor / Agent Lab

Share feedback β Unsaved 📁 ▾ New agent + Deploy 🚀

Build

AI Model: granite-3-3-8b-instruct ⌵ ⚙️ <

Are there any free online training platforms I can access with low internet connectivity? 🗑️

Configuration ⌵

Framework

LangGraph ▾

Architecture

ReAct ▾

Instructions [Advanced configuration](#)

Handle queries in simple English or optionally in the user's regional language if supported.

Keep your responses localized, concise, and focused on enabling real opportunities.

Knowledge ▾

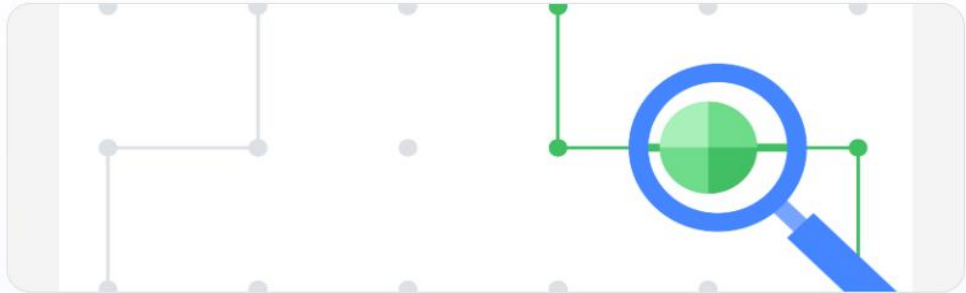
Tools ⌵

Agent preview

Career Counselor 03:28 PM

Welcome to Career Counselor

AI Agent that delivers personalized, localized career guidance to rural youth



Sample questions

What government skill development schemes are available for rural students after 10th grade? →


Can you suggest job-oriented diploma courses based on my interest in agriculture? →

Type something... 🔍 ▶

RESULTS

[Projects](#) / [Career Counselor](#) / Career Counselor

[Share feedback](#) β 📁 ▼ [New agent +](#) [Deploy](#) 🚀 ✎ ℹ️

 Build

AI

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

⚙️

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Setup

Configuration

Framework

LangGraph

Architecture

ReAct

Instructions

"Hi, I'm your AI Career Counselor. I can help you explore career options, skill programs, and courses suited for your goals. What would you like to know today?"

You are a helpful and empathetic AI Career Counselor designed to guide rural youth in discovering career opportunities based on their interests, education level, and local context.

Knowledge

Tools

Add a tool


Create custom tool

Agent preview

RK

You: 03:53 PM

What government skill development schemes are available for rural students after 10th grade?



Career Counselor 03:53 PM

Great question! After completing your 10th grade, there are several government schemes in India that can help you develop skills. Here are a few:

1. **Pradhan Mantri Kaushal Vikas Yojana (PMKVY):** This is a nationwide scheme aimed at imparting skill training to youth. It offers multiple job roles across various sectors. You can find training centers near you through the National Skill Development Corporation (NSDC) website.

2. **National Rural Livelihoods Mission (NRLM):** This scheme focuses on improving the living conditions of rural poor households, particularly women, by enhancing their skills and creating self-employment opportunities.

3. **Sarva Shiksha Abhiyan (SSA):** While primarily an education scheme, SSA also includes components for skill development, especially in rural areas.

4. **Rural Craftsman Training Institute (RCTI) Scheme:** This scheme provides training in rural artisan services to improve their livelihoods.

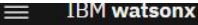
Type something...

🔍

➤

edunet
foundation

RESULTS




Upgrade ? 🔔 Raga priya Konanki's Acco... Dallas RK

Deployment spaces / Career_counselor / Career Counselor /


Career Counselor ✓ Deployed Online

API reference Test **Preview**

New chat +

 You 03:54 PM

what are the courses after intermediate


 Career Counselor 03:54 PM

After completing your intermediate, you have several pathways to consider, depending on your interests and career goals. Here are a few options:


- Vocational Courses:** These are skill-based courses that can be pursued after your intermediate. They are typically shorter than degree programs and focus on specific trades or industries. Examples include courses in IT, healthcare, hospitality, and design.
- Diploma Courses:** These are one to three-year courses offered by colleges and polytechnics. They provide more in-depth knowledge in a particular field compared to vocational courses.
- Bachelor's Degree Programs:** You could also opt for a three to four-year undergraduate degree in a field that interests you, such as engineering, commerce, arts, science, or law.

Type something... ➤

About this deployment ×

Name 


Career Counselor

Description 


AI Agent that delivers personalized, localized career guidance to rural youth


Deployment Details


Deployment ID: 219aed96-2051-41...

Serving name: 


No serving name.

Software specification: 


[runtime-24.1-py3.11](#) 

Hardware specification: 


Extra extra small: 1 CPU and 2 GB RAM


Copies: 

1

Tags 

wx-agent


Associated asset 

 [Career Counselor](#)

2d4964f3-2ceb-4dff-965b-25c179e91d22

RESULTS

Deployed AI Agent

 Upgrade ⓘ ↺ Raga priya Konanki's Acco... Dattas KK

Deployment spaces / Career_counselor / Career Counselor / ⓘ ⓘ ⓘ ⓘ ⓘ

Career Counselor

✔ Deployed Online


[API reference](#) [Test](#) [Preview](#)

[New chat +](#)

R

You 03:59 PM

Can you suggest job-oriented diploma courses based on my interest in agriculture?



Career Counselor 03:59 PM

Absolutely, I'd be happy to help you explore job-oriented diploma courses in agriculture. Given your interest, here are a few options:

- Diploma in Agriculture:** This is a fundamental course that covers various aspects of agriculture, including crop production, animal husbandry, and agricultural engineering.
- Diploma in Horticulture:** If you're particularly interested in fruits, vegetables, flowers, and ornamental plants, this could be a good fit. It covers plant production, pest management, and landscape design.
- Diploma in Agricultural Marketing and Management:** This course focuses on the business side of agriculture, including marketing strategies, supply chain management, and entrepreneurship.

Type something... ⓘ

CONCLUSION

- The AI Career Counselor for Rural Youth is a transformative solution that bridges the gap between rural aspirations and real-world opportunities.
- By offering personalized, accessible, and localized career guidance, it empowers youth with the knowledge and confidence to make informed decisions about their future.
- Unlike traditional counseling methods, this AI-powered agent works at scale, in real time, and across languages and literacy levels, ensuring that no talent is left behind due to lack of exposure or resources.
- It ensures inclusive, scalable impact by using local language support, low-bandwidth access, and smart data-driven suggestions—helping reduce underemployment and align skills with market needs.

FUTURE SCOPE

- Integration with Government & Skill Portals
- Geo-based Opportunity Mapping
- Personalized Career Roadmaps
- Research Gap and Novel Topic Identification
- Collaboration with NGOs & Schools
- AI Mentorship & Job Matching

IBM CERTIFICATIONS

In recognition of the commitment to achieve
professional excellence



Ragapriya Konanki

Has successfully satisfied the requirements for:

Getting Started with Artificial Intelligence



Issued on: Jul 20, 2025
Issued by: IBM SkillsBuild


Verify: <https://www.credly.com/badges/fe2cbdbc-d794-4716-99e0-10fe1703d7e2>



IBM CERTIFICATIONS

IBM SkillsBuild

Completion Certificate



This certificate is presented to

Raga priya Konanki

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

IBM CERTIFICATIONS





Thank You