### **IBM AICTE PROJECT**

### AI CAREER COUNSELOR RURAL YOUTH

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### **OUTLINE**

- Problem Statement
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## PROBLEM STATEMENT

The Challenge - 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
- IBM Watson Assistant
- IBM Cloud
- Language Translator
- IBM Granite model
- Testing Tools



# **ALGORITHM:**

## 1. Natural Language Processing (NLP):

- Used by IBM Watson Assistant to understand and respond to user queries
- Processes user inputs in regional languages (via Language Translator)
- Extracts intents (e.g., "I want a job") and entities (e.g., "B.Tech", "Skill India")

## 2. Rule-Based Dialog Management:

- Predefined dialog flows guide the user through structured conversations
- Helps users choose education level, interests, and get career suggestions
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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**

## 1. Multilingual Support

Supports regional languages like Telugu, Hindi, etc.

Makes career guidance accessible to rural youth who are not fluent in English

## 2. 24/7 Availability

Provides instant career guidance anytime, anywhere

No need for physical appointments or internet-savvy users

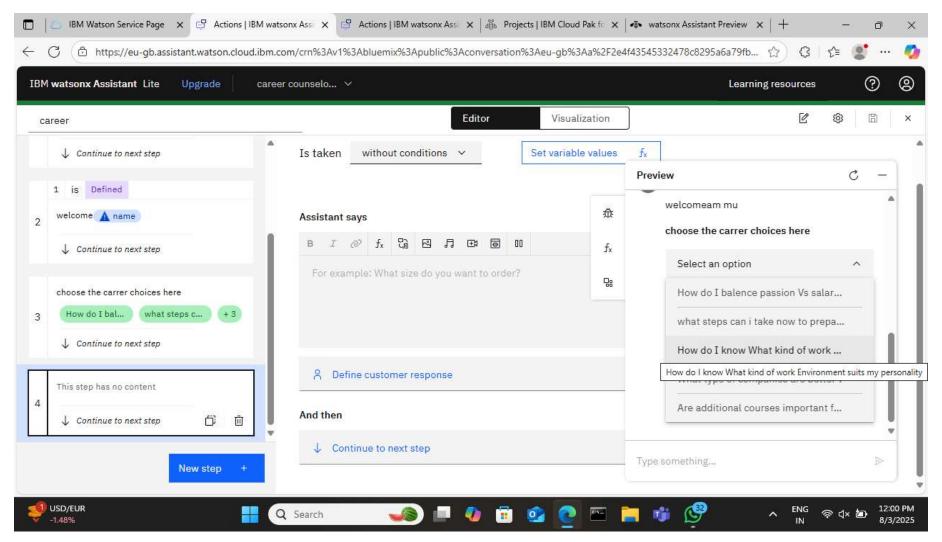


## END USERS

- Rural Students (Class 10th, 12th, and Graduates) Research Institutions and Universities
- Parents and Guardians
- Unemployed/Underemployed Youth
- School Teachers and Village Educators

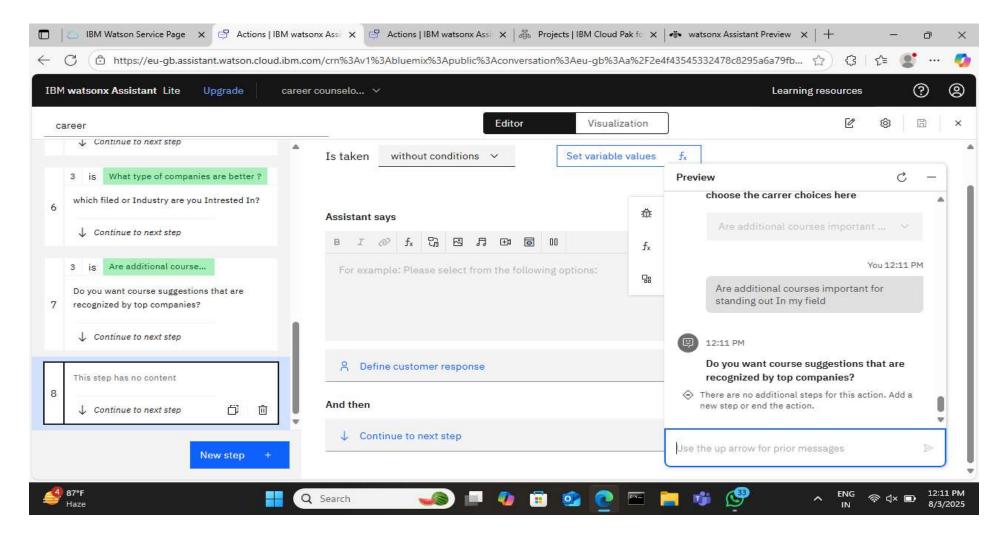


### **RESULTS**



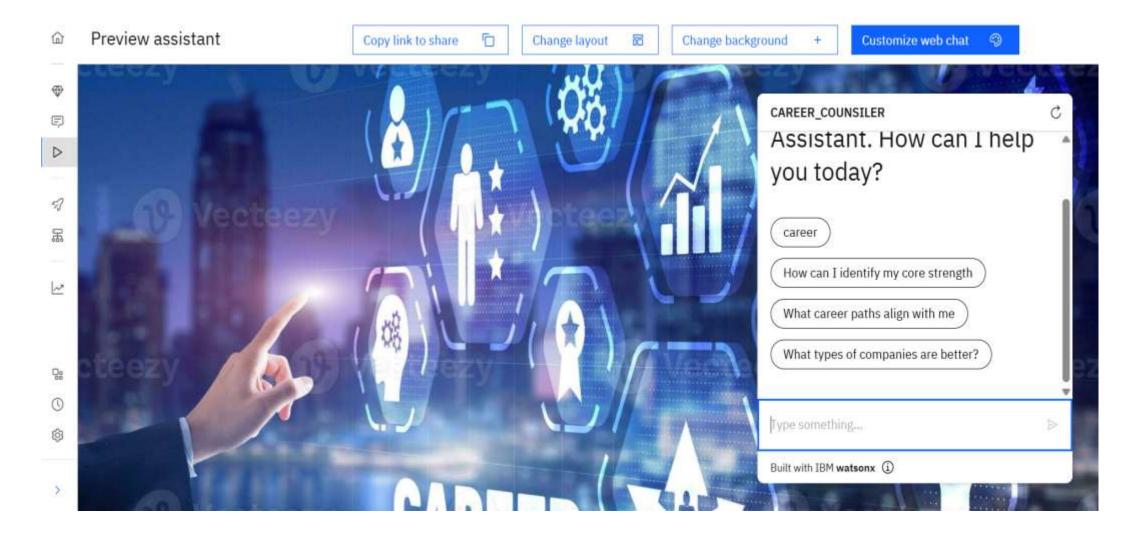


### **RESULTS**





### **RESULTS**





# CONCLUSION

- The **AI-based Career Counselor** for rural youth is a powerful initiative that bridges the gap between **opportunity and awareness**. By leveraging **IBM Cloud services** like Watson Assistant and Language Translator, the project offers **accessible**, **multilingual**, **and personalized career guidance** to students and job seekers in remote areas.



# **FUTURE SCOPE**

- Voice-Based Interaction
- Mobile App Integration
- AI-Based Career Prediction
- Integration with Government Portals
- Real-Time Counsellor Support



### **IBM CERTIFICATIONS**





#### IBM SkillsBuild

#### Completion Certificate



This certificate is presented to

Nuthpally Apoorva

for the completion of

## Lab: Retrieval Augmented Generation with LangChain

(ALM-COURSE\_3824998)

According to the Adobe Learning Manager system of record



Git hub lik: <a href="https://github.com/nuthpallyapoorva">https://github.com/nuthpallyapoorva</a>



## **THANK YOU**

