IBM HACKATHON PROJECT

AI-DRIVEN PLAGIARISM INTELLIGENCE FOR ASSIGNMENTS

Presented By : Akshita.R
Student name : Akshita.R
College Name : M. S. Ramaiah University of Applied Sciences
Department : Computer Science and Engineering

edunet foundation

OUTLINE

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

PROBLEM STATEMENT

❑ The Challenge :

Academic institutions face increasing difficulty in detecting nuanced forms of plagiarism, especially when assignments are paraphrased or generated by AI tools. Current plagiarism detectors lack contextual sensitivity to instructor-specific styles and grading patterns. The challenge lies in creating an adaptive AI system that learns from historical assignment submissions and instructor feedback to identify inconsistencies and potential misconduct dynamically. This would enhance academic integrity by flagging suspicious entries with improved accuracy and contextual awareness.

❑ Proposed Solution :

The proposed solution is to build an AI-powered plagiarism detection system using IBM Watson Studio and Granite that detects copied, paraphrased, or AI-generated content by analyzing semantic similarity and learning from instructor feedback. It will use IBM Cloud Object Storage for data, deploy models via Watson Machine Learning, and offer a simple interface for assignment uploads and detailed plagiarism reports.

TECHNOLOGY USED

- **IBM Cloud Lite Services** - A free-tier platform by IBM to build, test, and deploy cloud-based applications using limited resources.
- **Natural Language Processing (NLP)** - A branch of AI that enables machines to understand, interpret, and generate human language.
- **Retrieval-Augmented Generation (RAG)** - An AI technique that enhances response generation by retrieving relevant external documents or data.
- **Agentic AI** - AI systems capable of autonomous goal-driven behavior, making decisions and taking actions with minimal human input.
- **IBM Granite Model -** IBM's family of large language models (LLMs) designed for advanced text understanding, generation, and enterprise AI tasks.

IBM CLOUD SERVICES USED

- **IBM Watsonx.ai studio** – For building and training the AI and ML models.
- **IBM Granite** – For semantic analysis and AI-generated text detection.
- **IBM Cloud Object Storage** – To store assignment data and historical records.
- **IBM Watson Machine Learning** – For deploying and managing trained models.
- **IBM Cloud Functions** – To host APIs for model inference.
- **IBM Cloud Foundry** – For building a web interface or dashboard.

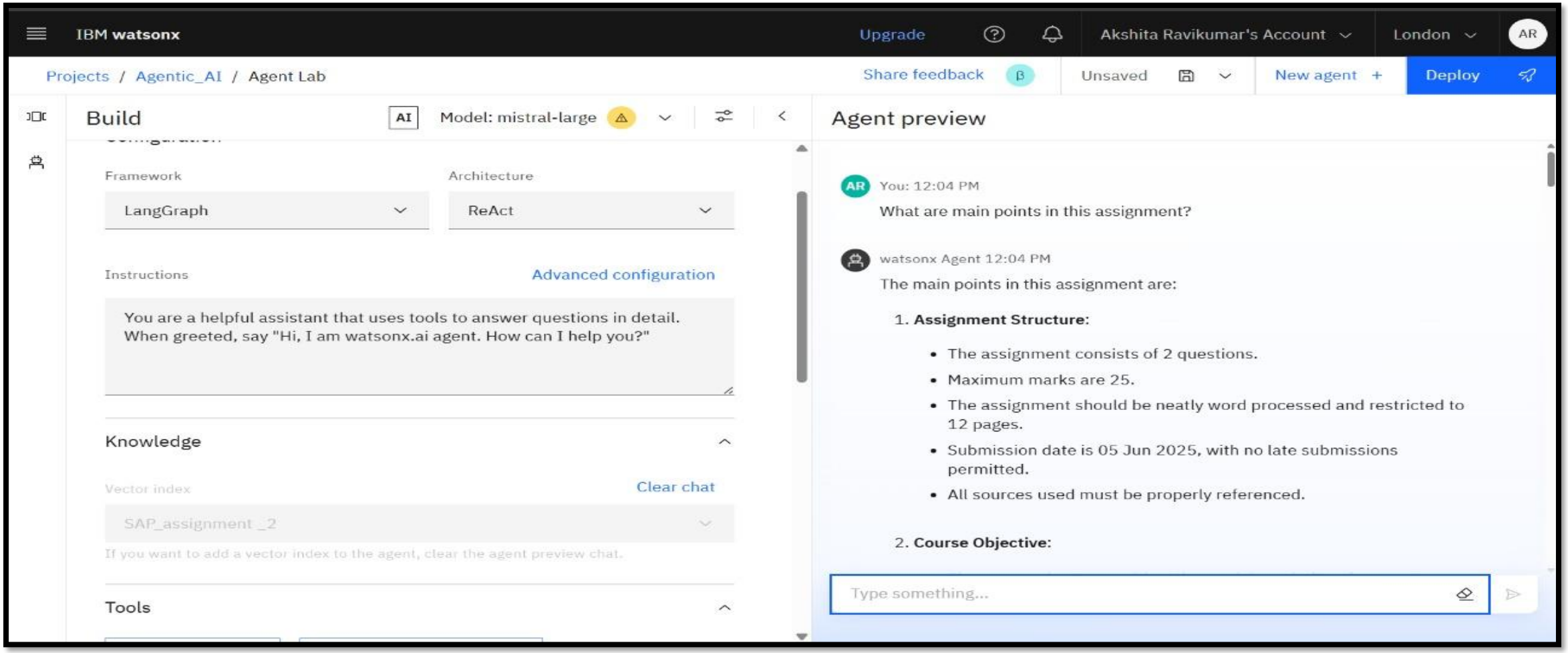
WOW FACTORS

- This agent will enhance **academic integrity** by detecting nuanced plagiarism, paraphrasing, and AI-generated content, while adapting to instructor-specific feedback and writing patterns.
- It will empower educators with **intelligent, context-aware tools to ensure fairness, accuracy, and accountability** in assignment evaluation.
- **Unique features:**
  - Contextual plagiarism detection using semantic similarity and AI text recognition
  - Instructor-specific learning for personalized feedback sensitivity
  - Identification of AI-generated content and paraphrased submissions
  - Dynamic flagging system with confidence scoring and highlighted segments
  - Historical assignment comparison for deeper analysis and traceability
  - Lightweight dashboard or chatbot for real-time assignment evaluation

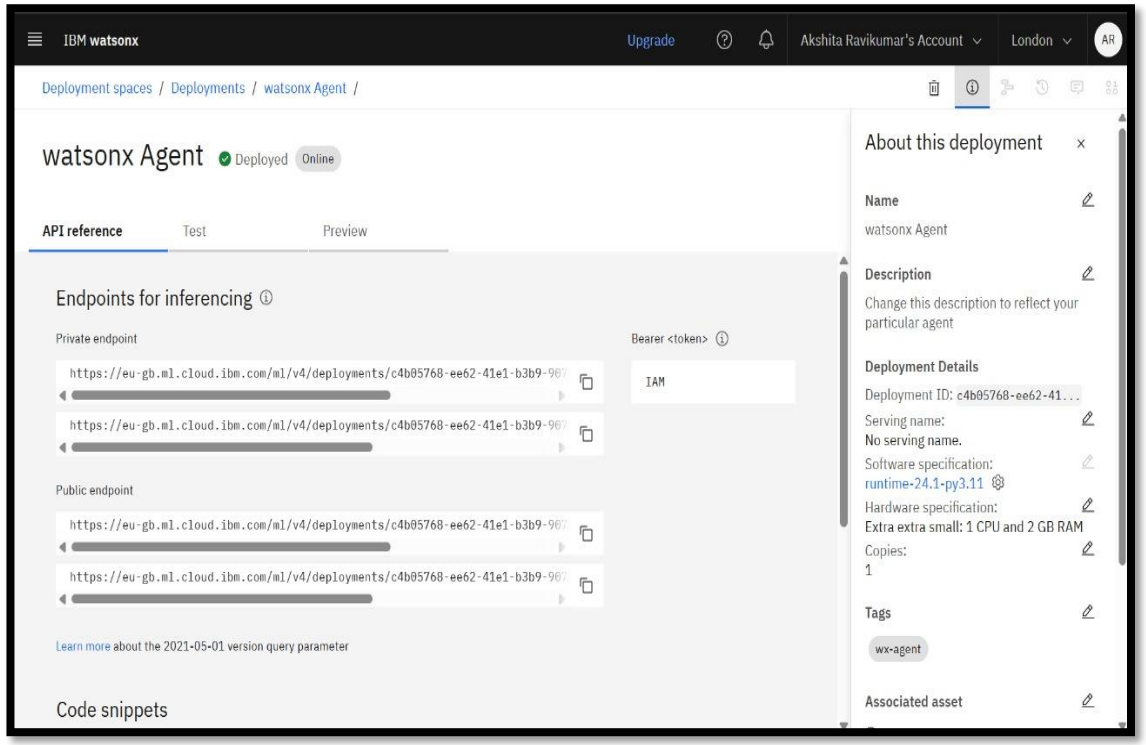
END USERS

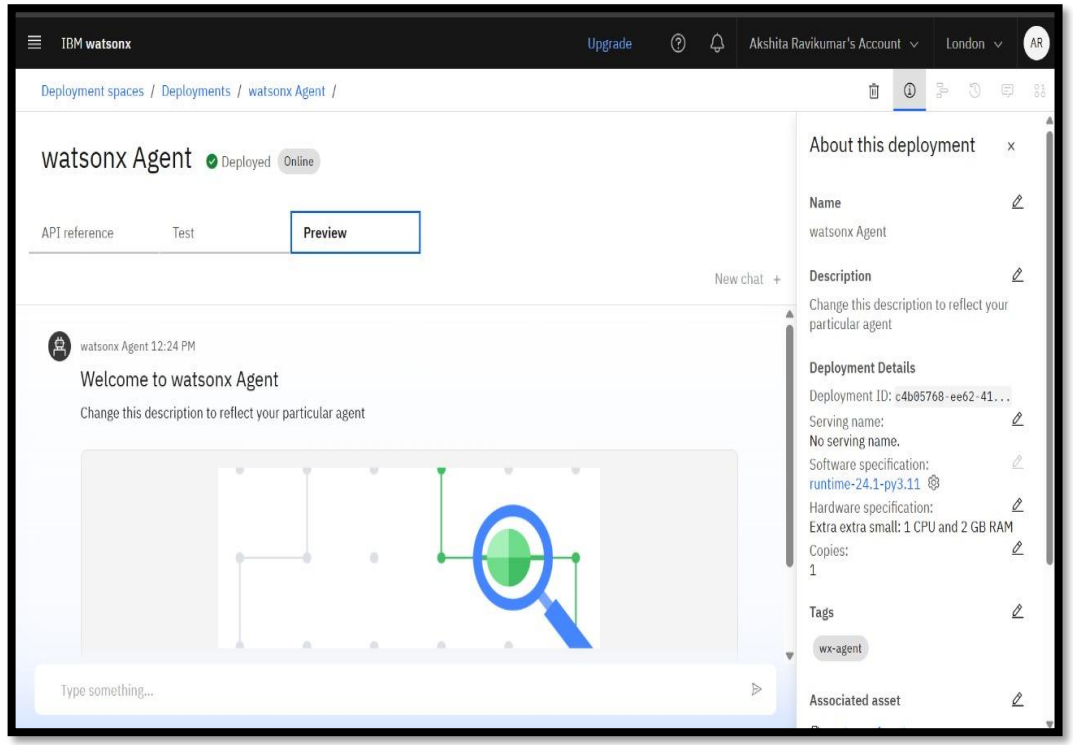
- Faculty Members and Educators
- Academic Institutions and Universities
- Examination and Evaluation Committees
- Students (for self-assessment and learning support)
- Learning Management System (LMS) Providers and EdTech Platforms

RESULTS

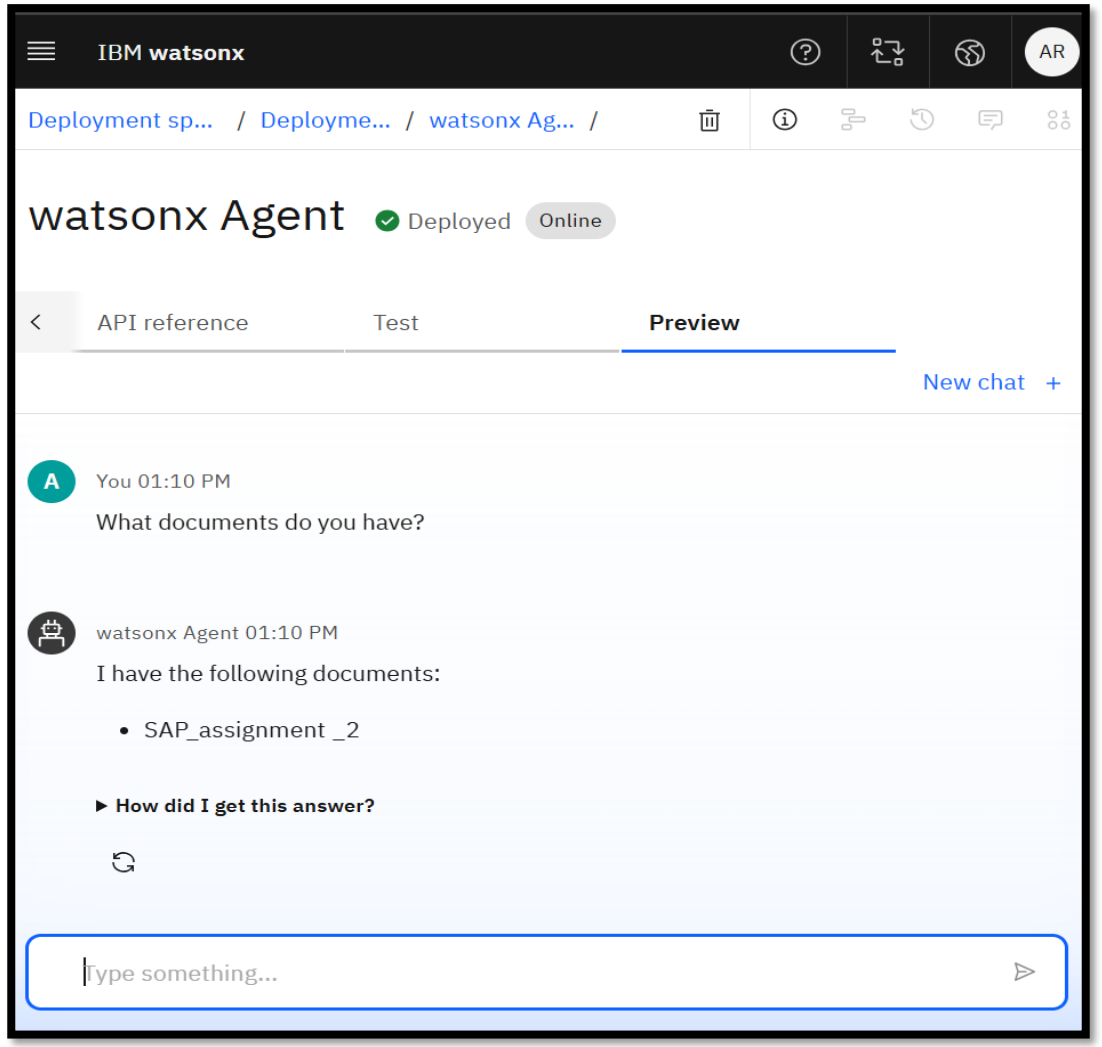


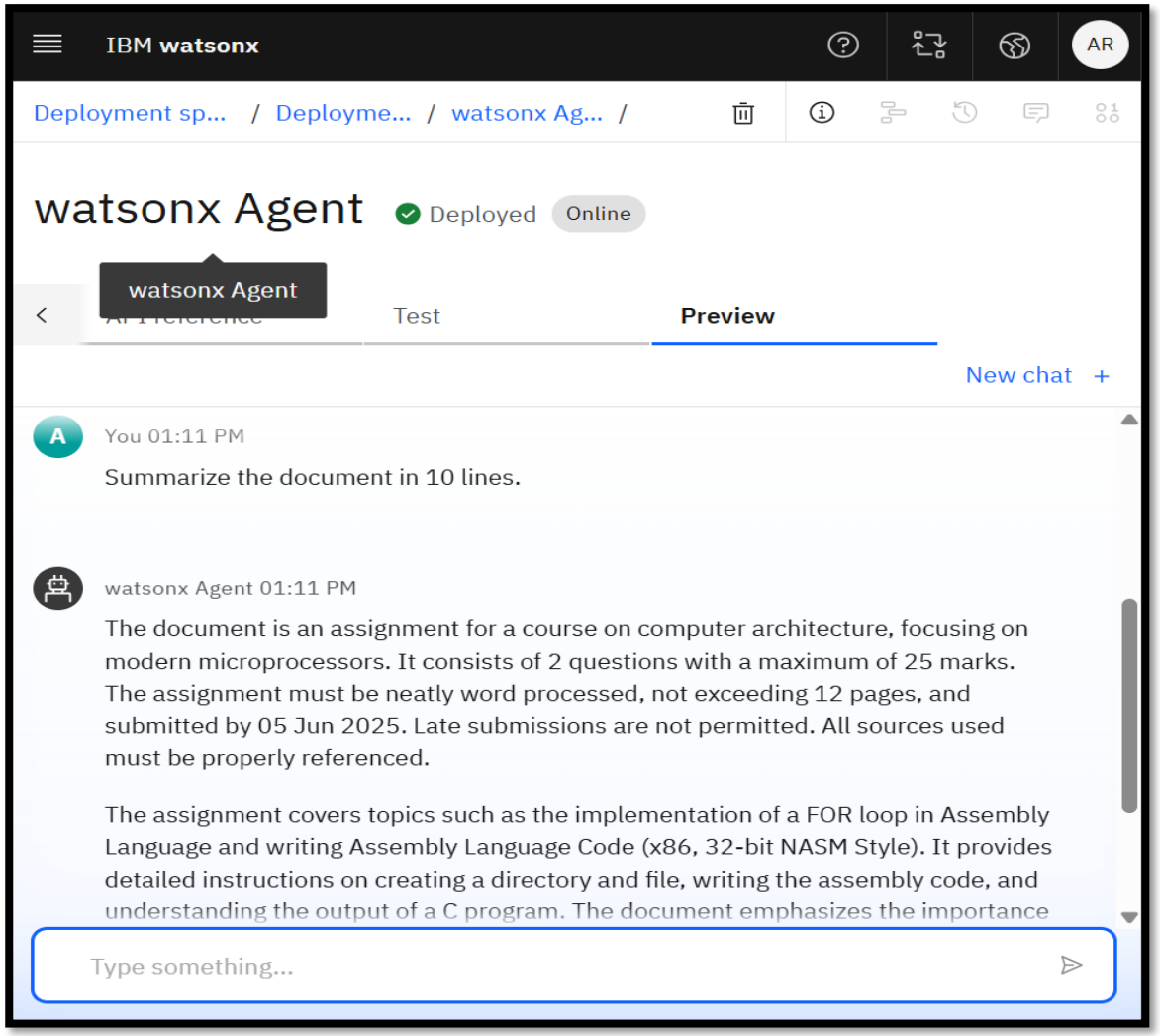
RESULTS





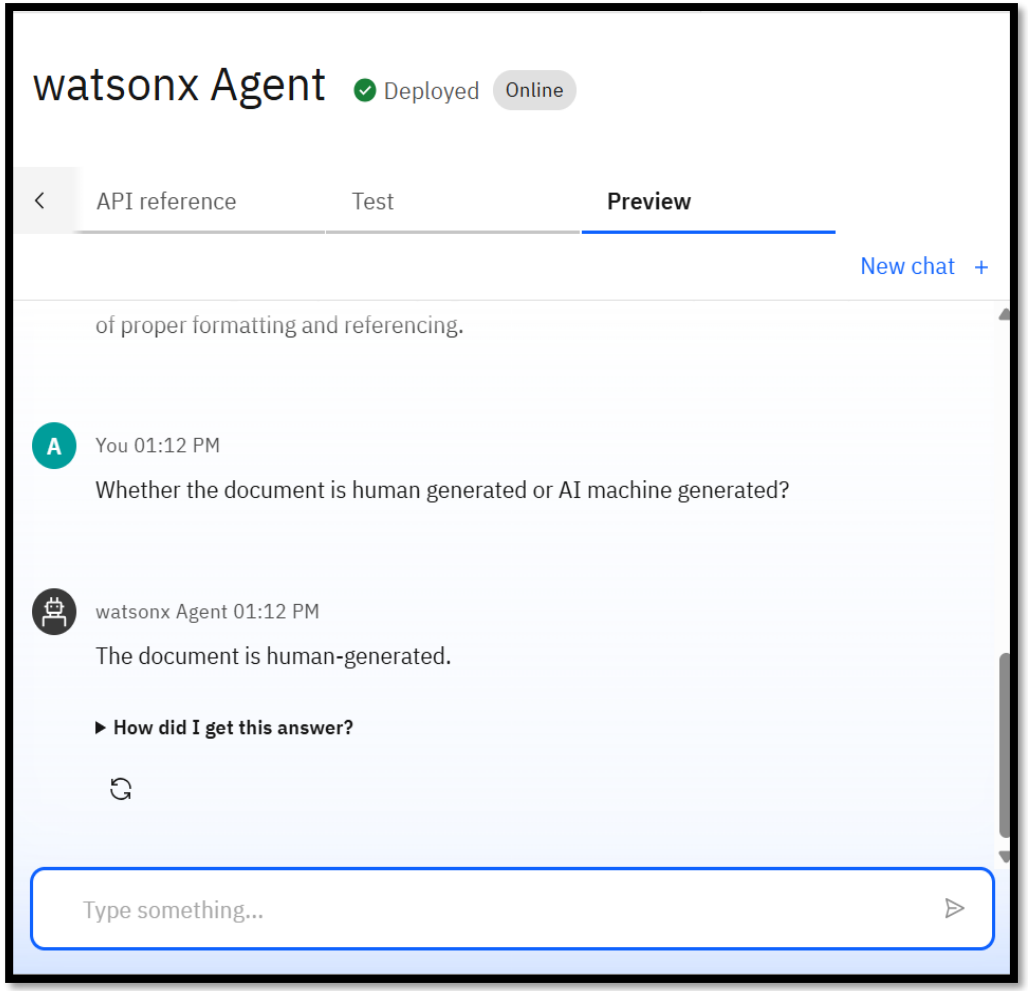
RESULTS

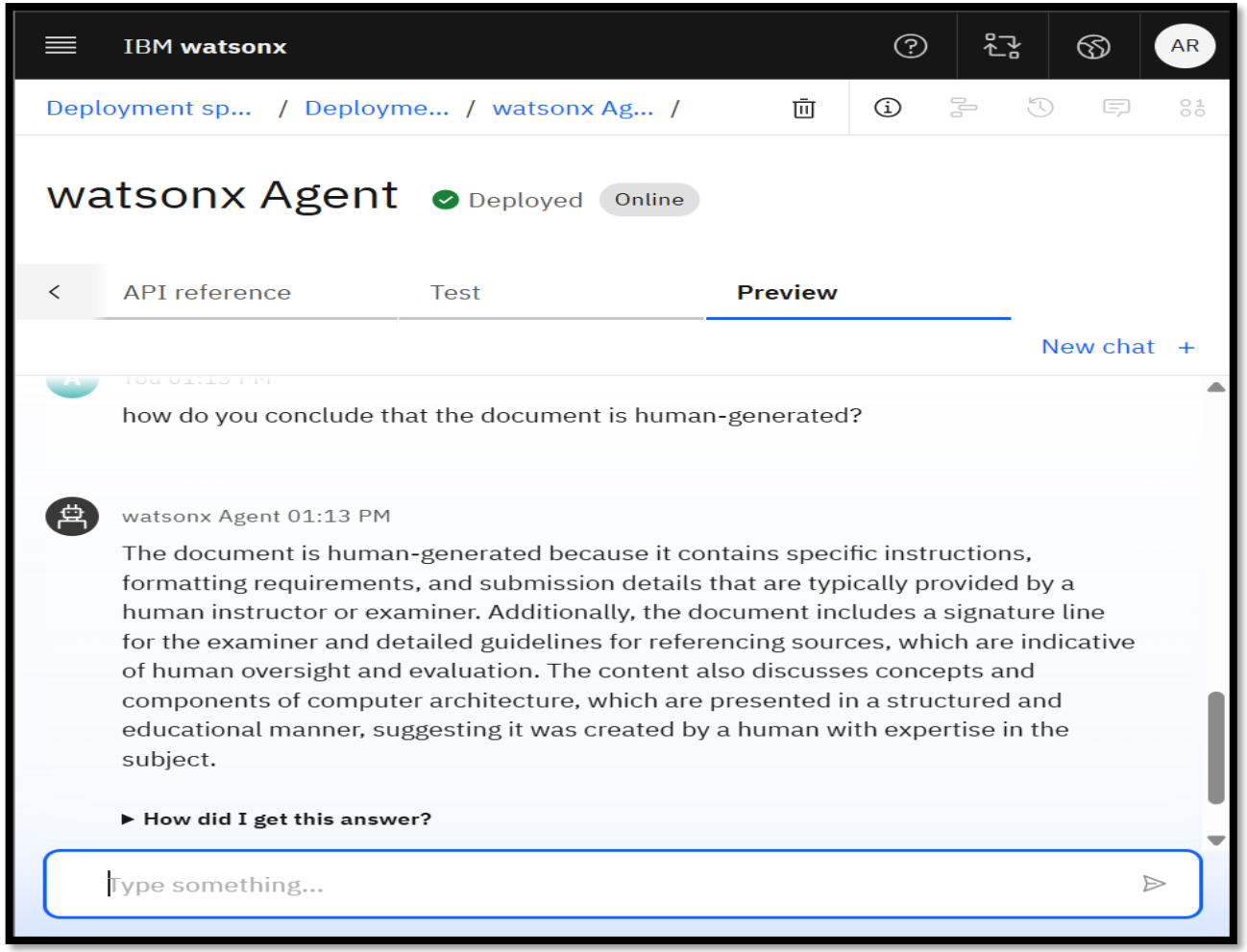




edunet foundation

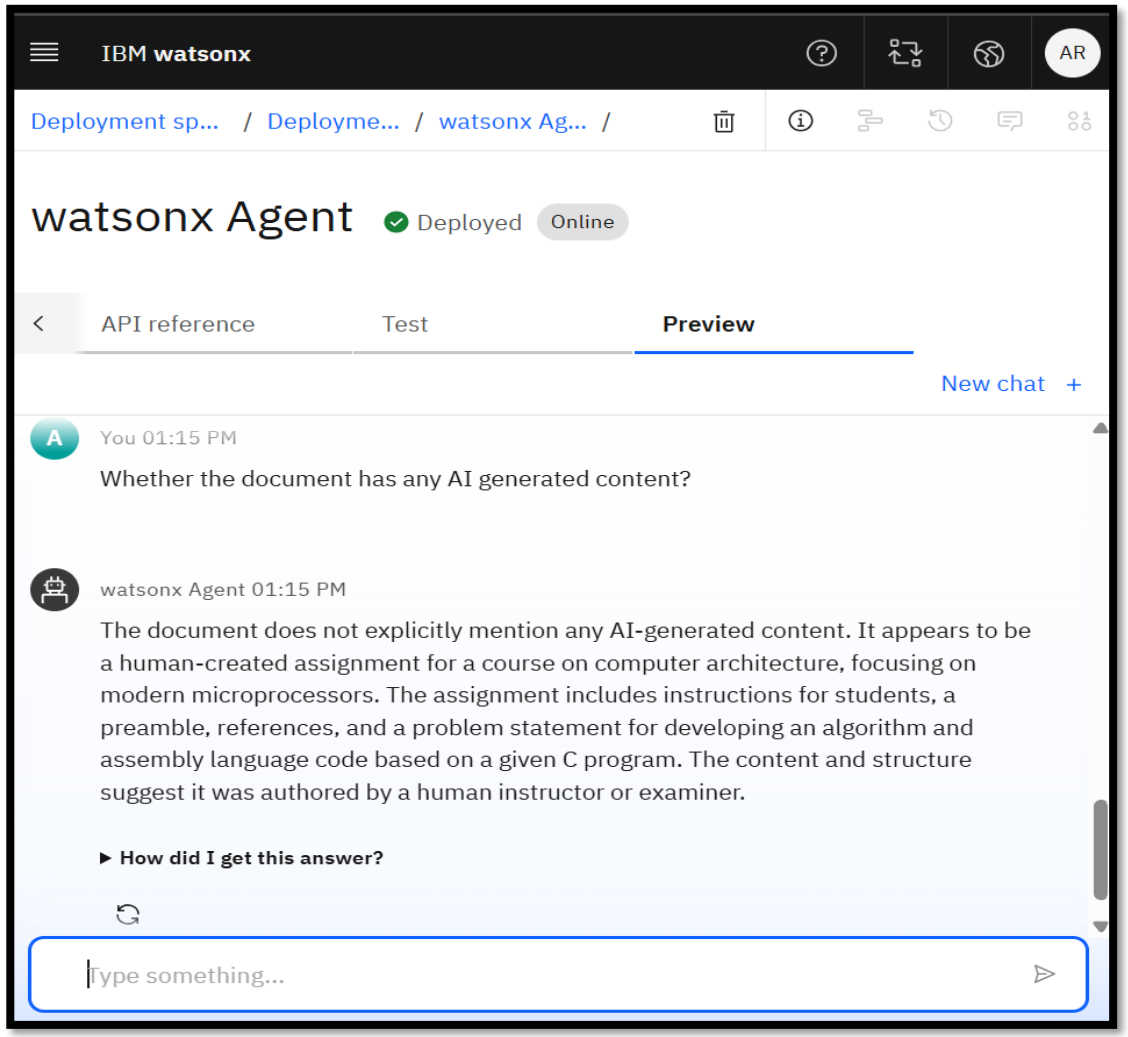
RESULTS

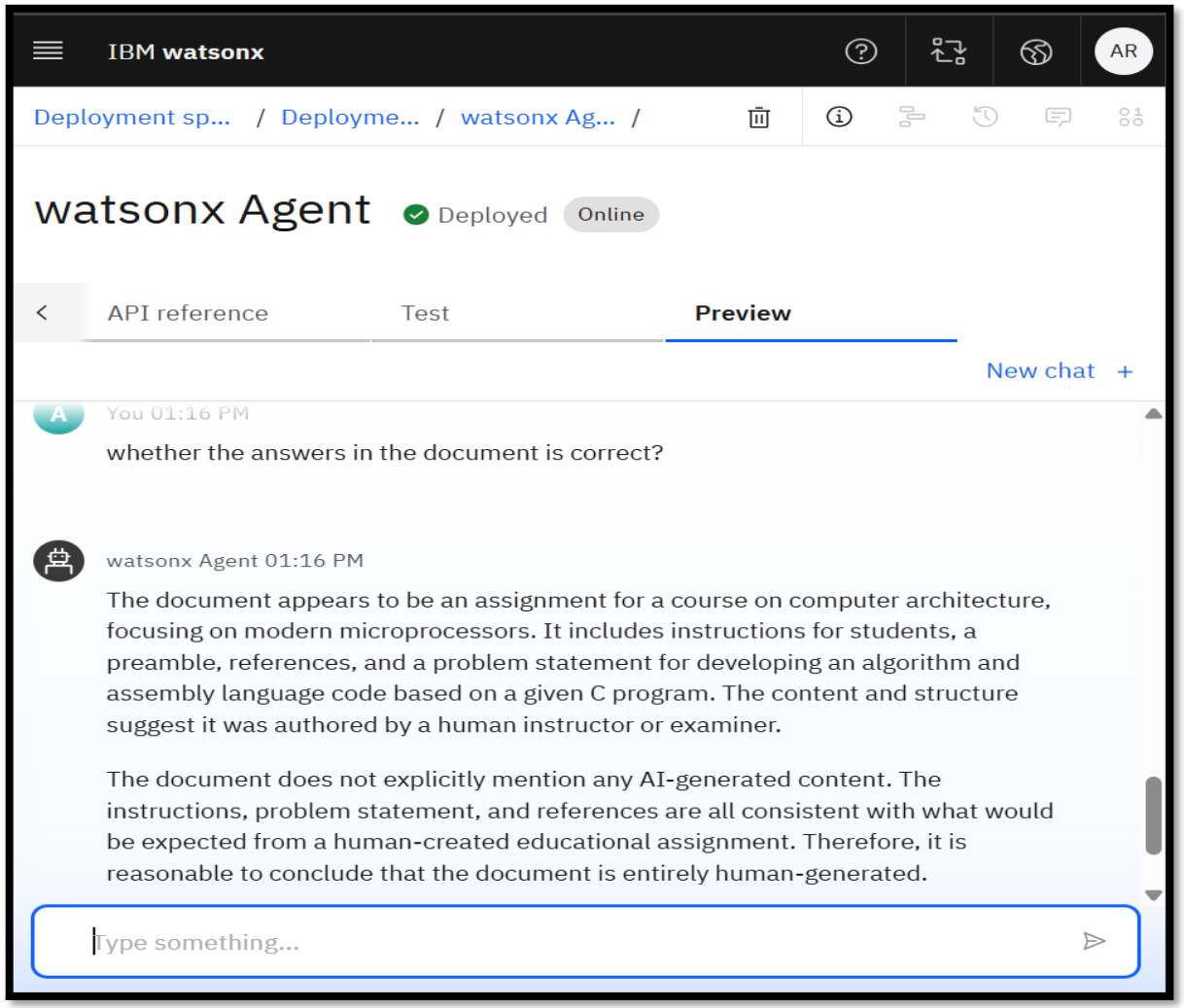




edunet foundation

RESULTS

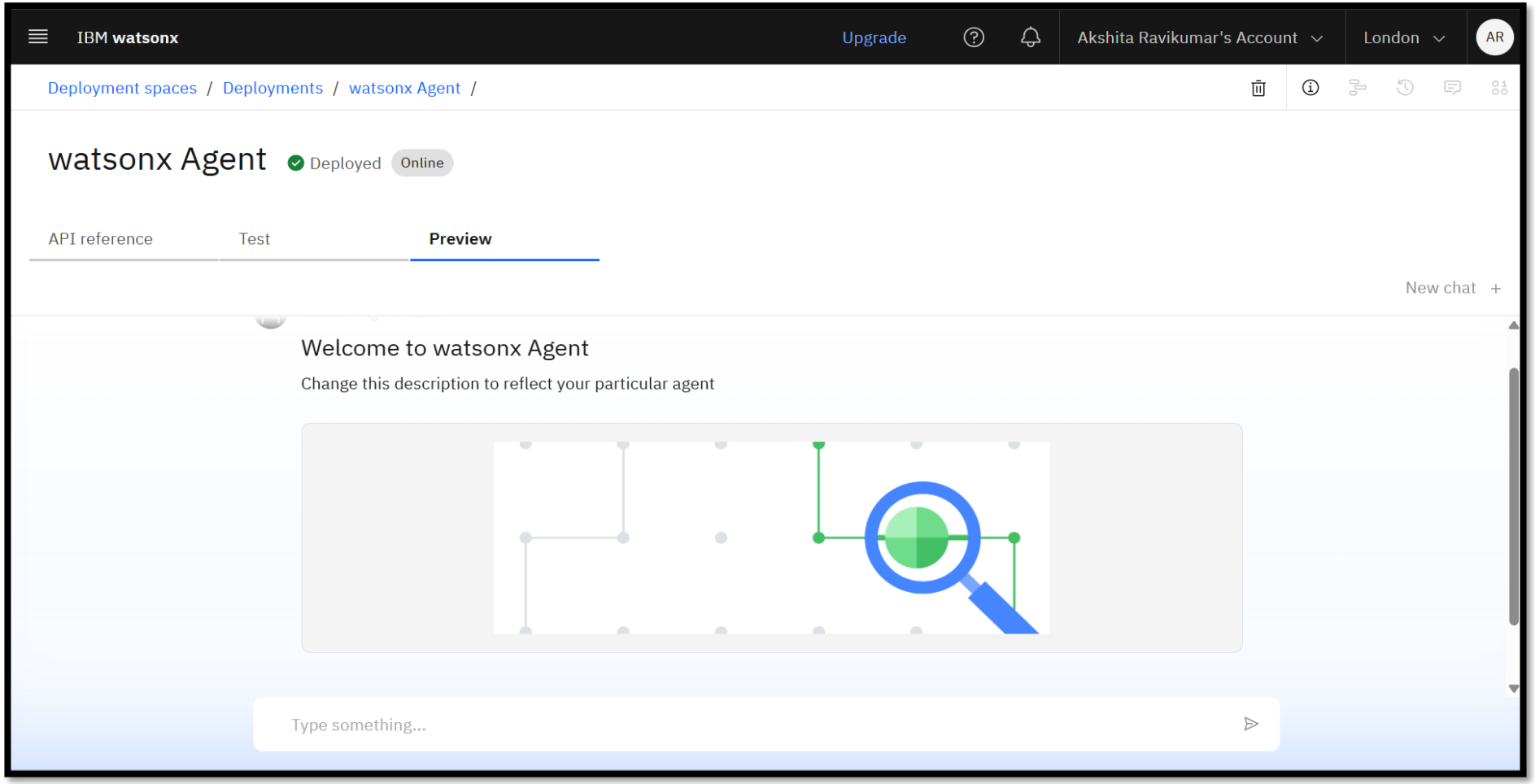




edunet foundation

RESULTS

Deployed AI Agent :



CONCLUSION

- The **AI-Driven Plagiarism Intelligence** system offers an advanced solution to uphold academic integrity by detecting and analyzing potential plagiarism in student assignments.
- By leveraging Natural Language Processing (NLP), machine learning, and semantic similarity analysis, the system can detect rephrased, paraphrased, and intelligently disguised content.
- It significantly reduces the manual effort for educators, improves detection accuracy, and promotes originality among students.
- This tool not only streamlines plagiarism checking but also fosters ethical academic behavior and responsible content creation.

GITHUB LINK

- Make sure that there should be readme file
- GitHub Link : https://github.com/Akshita21-09/AICTE-AI-and-Cloud-Internship-Project-AI-Driven-Plagiarism-Intelligence-for-Assignments.git

FUTURE SCOPE

- Multilingual Plagiarism Detection
- Cross-platform Integration
- Deep Semantic Understanding
- Code Plagiarism Detection
- Blockchain for Academic Integrity
- Feedback and Learning Recommendations
- Dataset Expansion and Continuous Learning

IBM CERTIFICATIONS

- Screenshot/ credly certificate(getting started with AI)

Attach your RAG LAB certificate here

IBM **SkillsBuild** Completion Certificate

This certificate is presented to

Akshita Ravikumar

for the completion of

Lab: Retrieval Augmented Generation with LangChain

(ALM-COURSE_3824998)

According to the Adobe Learning Manager system of record

Completion date: 18 Jul 2025 (GMT) **Learning hours:** 20 mins

THANK YOU

edunet foundation