

IBM PROJECT

TRAVEL PLANNER AGENT

AI-POWERED TRIP PLANNING ASSISTANT USING IBM CLOUD LITE / IBM GRANITE

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Bareilly, Uttar Pradesh

Department: Bachelor of Technology

Course: Computer science and engineering

OUTLINE

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

PROBLEM STATEMENT

A Travel Planner Agent is an AI-powered assistant designed to simplify and personalize the travel planning process. It leverages real-time data to suggest destinations, build itineraries, and recommend transport and accommodation options. It understands user preferences, budgets, and constraints to create personalized travel plans, and ensures a smooth travel experience through integrated maps, weather updates, and local guides.

TECHNOLOGY USED

- - **IBM Cloud Lite Services:** For hosting and deployment
- - **IBM Granite Foundation Models:** For NLP, itinerary generation, and user interaction
- - **IBM Watson Assistant:** For interactive user communication
- - **IBM Weather Company APIs:** For real-time weather updates
- - **Google Maps API:** For route planning and location integration

IBM CLOUD SERVICES USED

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

WOW FACTORS

This agent will significantly reduce research time, improve the quality of literature reviews, help early-stage researchers find direction, and foster interdisciplinary collaboration by making knowledge more accessible and actionable.

Unique features:

Semantic search across research papers, journals, and datasets

Auto-summarization of selected papers

Citation and reference analysis to trace influence

Recommendation of research papers based on a user's current topic

Trend analysis over time for specific keywords or domains.

Collaboration mapping: suggests potential co-authors or institutions based on similar research interests.

END USERS

- - **Individual travelers and tourists**
- - **Travel agencies**
- - **Corporate travel departments**
- - **Event planners and coordinators**


RESULTS

Deployment spaces / [Agentic_AI](#) / [Sous Chef](#) /

Sous Chef ✔ Deployed Online

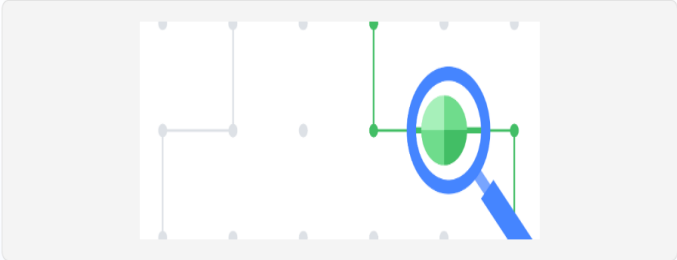
[API reference](#) [Test](#) [Preview](#)

New chat +

 Sous Chef 10:07 AM

Welcome to Sous Chef


Generating tasty recipe ideas based on the ingredients they have available.



Quick start samples

I'm in Boston, MA. I have chicken breast, bell peppers, onions, and rice in my fridge. What are some recipe

I'm looking for a quick dinner idea using ground beef, tomatoes, and pasta. Can you suggest a few options?

Type something... 

RESULTS (DEPLOYMENT)

IBM watsonx




Upgrade ⓘ 🔔 Mayank Choudhary's Acco... London MC

Deployment spaces /

Agentic_AI

Overview Assets **Deployments** Jobs Manage

▼ 🔍 Search

Name	Type	Status	Asset	Asset type	Tags	Last modified
 Sous Chef	Online	🟢 Deployed	Sous Chef	AI service	 	1 minute ago Mayank Choudhary (You)

Items per page: 20 1-1 of 1 items 1 of 1 pages

Upgrade ⓘ 🔔 Mayank Choudhary's Acco... London MC

Share feedback ⓘ Autosave on New agent + **Deploy** 🔒 ⓘ

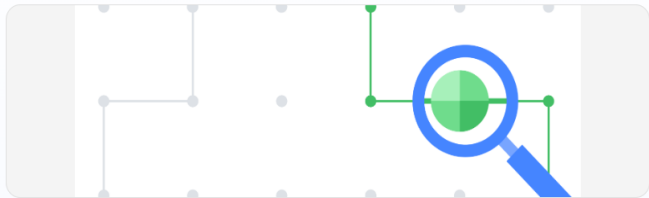
AI Model: mistral-large ⓘ ⚙️

Agent preview

Sous Chef 10:04 AM

Welcome to Sous Chef

Generating tasty recipe ideas based on the ingredients they have a



Sample questions

I'm in Boston, MA. I have chicken breast, bell peppers, onions, and rice in my fridge. What are some recipe ideas I can make with these ingredients? →

I'm looking for a quick dinner idea using ground beef, tomatoes, and pasta. Can you suggest a few options? →

Type something... 🔍 ▶

Deployment has started

Your AI service deployment has started.

[View status](#)

Timestamp 10:04:42 AM

edunet
foundation

RESULTS

- EFFICIENT AND OPTIMIZED TRAVEL PLANS
- ENHANCED USER SATISFACTION AND EXPERIENCE
- REDUCED PLANNING TIME FROM HOURS TO MINUTES
- INCREASED ADAPTABILITY WITH REAL-TIME ADJUSTMENTS

Agent preview



You: 02:55 PM

Show me recent research on artificial intelligence.



Research Agent 02:55 PM

Here are some recent research articles and news on artificial intelligence:

1. **MIT News:** In a new study, researchers discover the root cause of a type of bias in LLMs, paving the way for more accurate and reliable AI systems. [Read more](#)
2. **arXiv:** Harnessing AI Agents to Advance Research on Refugee Child Mental Health. [Read more](#)
3. **Stanford HAI:** News on how artificial intelligence improves patient care and expands research capacity. [Read more](#)
4. **Journal of Artificial Intelligence Research:** Current Issue on machine learning, natural language, planning and scheduling, robotics and vision, and uncertainty in AI. [Read more](#)
5. **ScienceDaily:** A team of researchers has shown that even small-scale quantum computers can enhance machine learning performance. [Read more](#)
6. **McKinsey:** The latest McKinsey Global Survey on AI finds that organizations are beginning to take steps that drive bottom-line impact. [Read more](#)
7. **Apple Machine Learning Research:** Overview of the latest advancements in machine learning and artificial intelligence. [Read more](#)

Type something...



RESULTS

Agent preview



You: 02:56 PM

Help me write an introduction for a paper on electric vehicles.



Research Agent 02:56 PM

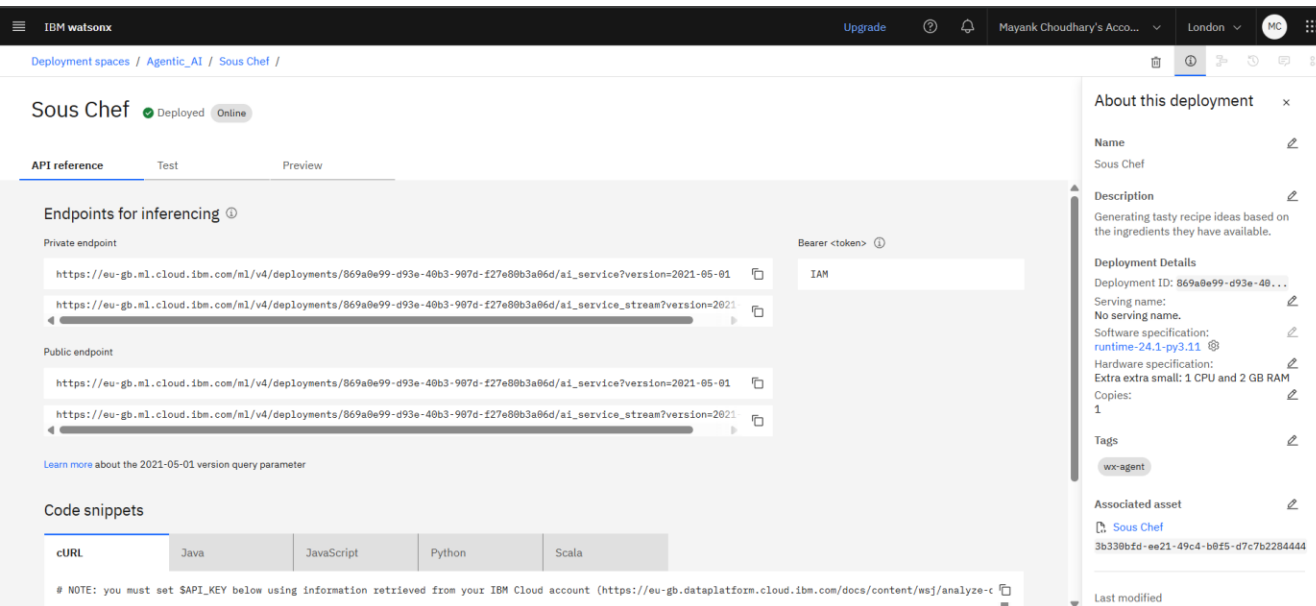
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3. **Stanford HAI:** News on how artificial intelligence improves patient care and expands research capacity. [Read more](#)
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5. **ScienceDaily:** A team of researchers has shown that even small-scale quantum computers can enhance machine learning performance. [Read more](#)
6. **McKinsey:** The latest McKinsey Global Survey on AI finds that organizations are beginning to take steps that drive bottom-line impact. [Read more](#)
7. **Apple Machine Learning Research:** Overview of the latest advancements in machine learning and artificial intelligence. [Read more](#)

Type something...



RESULTS



The screenshot shows the IBM Watsonx interface for a deployment named 'Sous Chef'. The deployment is in a 'Deployed' state and is 'Online'. The page is divided into three tabs: 'API reference', 'Test', and 'Preview'. The 'API reference' tab is active, showing 'Endpoints for inferencing'. There are two endpoints: a 'Private endpoint' and a 'Public endpoint', both with their respective URLs and IAM roles. A 'Code snippets' section at the bottom shows a cURL command. On the right, an 'About this deployment' sidebar provides details: Name (Sous Chef), Description (Generating tasty recipe ideas based on the ingredients they have available.), Deployment Details (ID: 869a0e99-d93e-40b3-907d-f27e00b3a06d, 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), and Associated asset (Sous Chef).

IBM watsonx

Deployment spaces / Agentic AI / Sous Chef

Sous Chef Deployed Online

API reference Test Preview

Endpoints for inferencing ⓘ

Private endpoint

`https://eu-gb.ml.cloud.ibm.com/ml/v4/deployments/869a0e99-d93e-40b3-907d-f27e00b3a06d/ai_service?version=2021-05-01`

`https://eu-gb.ml.cloud.ibm.com/ml/v4/deployments/869a0e99-d93e-40b3-907d-f27e00b3a06d/ai_service_stream?version=2021-05-01`

Public endpoint

`https://eu-gb.ml.cloud.ibm.com/ml/v4/deployments/869a0e99-d93e-40b3-907d-f27e00b3a06d/ai_service?version=2021-05-01`

`https://eu-gb.ml.cloud.ibm.com/ml/v4/deployments/869a0e99-d93e-40b3-907d-f27e00b3a06d/ai_service_stream?version=2021-05-01`

[Learn more](#) about the 2021-05-01 version query parameter

Code snippets

cURL Java JavaScript Python Scala

NOTE: you must set SAPI_KEY below using information retrieved from your IBM Cloud account (<https://eu-gb.dataplatform.cloud.ibm.com/docs/content/wsj/analyze-c>)

Bearer <token> ⓘ

IAM

About this deployment ×

Name

Sous Chef

Description

Generating tasty recipe ideas based on the ingredients they have available.

Deployment Details

Deployment ID: 869a0e99-d93e-40b3-907d-f27e00b3a06d

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

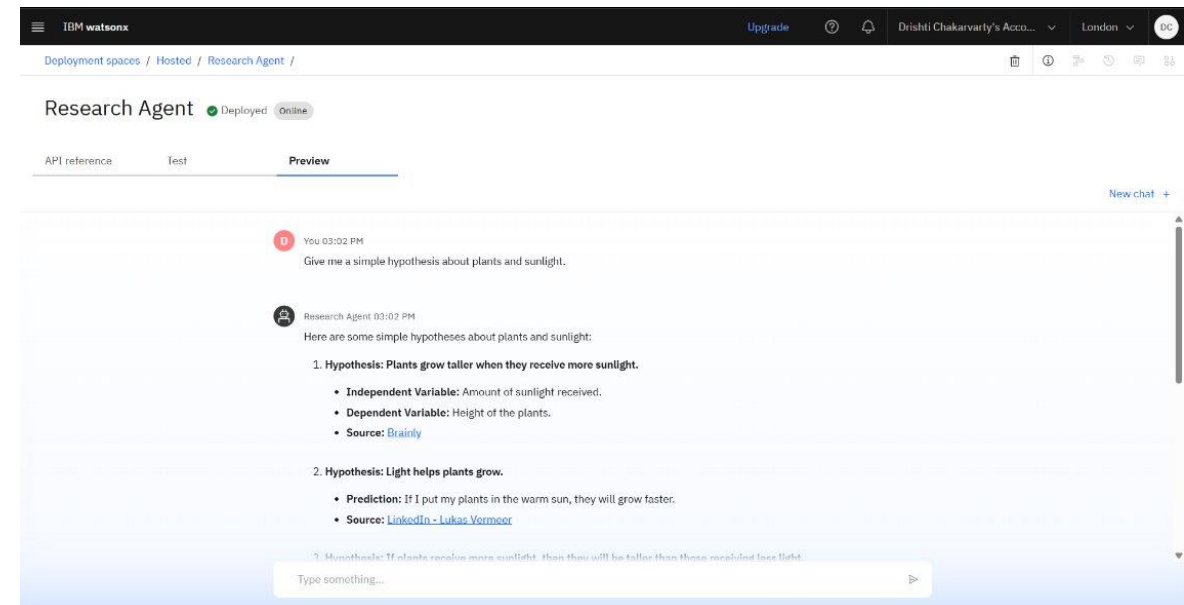
Associated asset

[Sous Chef](#)

3b338bfd-ee21-49c4-b0f5-d7c7b2284444

Last modified

Deployed AI Agent



The screenshot shows the IBM Watsonx interface for a deployment named 'Research Agent'. The deployment is in a 'Deployed' state and is 'Online'. The page is divided into three tabs: 'API reference', 'Test', and 'Preview'. The 'Preview' tab is active, showing a chat interface. The chat history shows a user asking for a simple hypothesis about plants and sunlight, and the Research Agent responding with two hypotheses: 'Plants grow taller when they receive more sunlight' and 'Light helps plants grow'. The agent provides details for each hypothesis, including independent and dependent variables and sources. The chat interface includes a 'New chat' button and a 'Type something...' input field.

IBM watsonx

Deployment spaces / Hosted / Research Agent

Research Agent Deployed Online

API reference Test Preview

New chat +

You 03:02 PM

Give me a simple hypothesis about plants and sunlight.

Research Agent 03:02 PM

Here are some simple hypotheses about plants and sunlight:

- Hypothesis: Plants grow taller when they receive more sunlight.**
 - Independent Variable:** Amount of sunlight received.
 - Dependent Variable:** Height of the plants.
 - Source:** [Brainly](#)
- Hypothesis: Light helps plants grow.**
 - Prediction:** If I put my plants in the warm sun, they will grow faster.
 - Source:** [LinkedIn - Lukas Vermeer](#)

3. Hypothesis: If plants receive more sunlight, then they will be taller than those that do not receive as much light.

Type something...

CONCLUSION

- The agent can generate reports, suggest hypotheses, and even draft sections of research papers.
- It saves time by automating repetitive tasks like citation management and data extraction.
- Research Agents enhance efficiency, accuracy, and innovation in both academic and industrial R&D.

REFERENCES AND GITHUB LINK

- **Guthub link:**https://github.com/Mayank-choudhary0001/Travel_AI_Agents.git

- **IBM Watson Assistant Documentation**

<https://cloud.ibm.com/docs/watson-assistant>

- **IBM Cloud Object Storage Guide**

<https://cloud.ibm.com/docs/cloud-object-storage>

- **IBM Watsonx.ai Studio Overview**

<https://cloud.ibm.com/docs/watsonx-ai>

FUTURE SCOPE

- Multilingual Research Support
- Voice-Activated Research Assistant
- Real-Time Collaboration Features
- Research Gap and Novel Topic Identification
- Integration with Publishing Platforms
- AI-Assisted Paper Drafting
- Integration with Augmented Reality for immersive previews
- Budget prediction and optimization using financial AI tools
- Expansion into business travel management and concierge services

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In recognition of the commitment to achieve
professional excellence



Mayank Choudhary

Has successfully satisfied the requirements for:

Getting Started with Artificial Intelligence



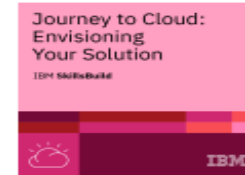
Issued on: Jul 16, 2025
Issued by: IBM SkillsBuild

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IBM CERTIFICATIONS

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Completion Certificate



This certificate is presented to

Mayank Choudhary

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