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# **CAPSTONE PROJECT**

## **TRAVEL PLANNER AGENT**

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## OUTLINE

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

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# PROBLEM STATEMENT

- Planning a trip can be a complex and time-consuming task, involving research on destinations, booking transport and accommodation, managing budgets, and staying updated on travel advisories, weather, and local attractions. Travelers often face difficulties aligning their preferences, constraints, and schedules, especially when trying to coordinate multiple components in real time. The Travel Planner Agent aims to solve this challenge by serving as an intelligent, AI-powered assistant that leverages real-time data to recommend personalized destinations, build optimized itineraries, suggest suitable accommodations and transport, and manage bookings. By integrating with maps, weather services, and local guides, the agent ensures a seamless and enjoyable travel experience. It adapts to user preferences, alerts travelers to changes, and provides ongoing itinerary optimization—making travel planning efficient, stress-free, and tailored to individual needs.

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# TECHNOLOGY USED

IBM cloud lite services

Natural Language Processing (NLP)

IBM Granite model

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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

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## WOW FACTORS

The Travel Planner Agent stands out with its ability to deliver a fully personalized and adaptive travel experience powered by real-time intelligence. Its seamless integration of live data—such as flight prices, weather updates, local events, and safety advisories—ensures travelers are always informed and prepared. What truly sets it apart is its dynamic itinerary optimization, which adjusts schedules on the fly in response to delays, weather changes, or personal preferences. Users can receive instant booking assistance, tailored recommendations based on their travel style, and access to hidden gems curated through smart algorithms. The agent's ability to function as a 24/7 travel companion—handling everything from discovery to day-to-day navigation—transforms the traditional travel planning process into something intuitive, engaging, and truly hassle-free.

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## END USERS

- Solo Travellers
- Business Travelers
- Backpackers and Adventure Seekers
- First-Time Travelers

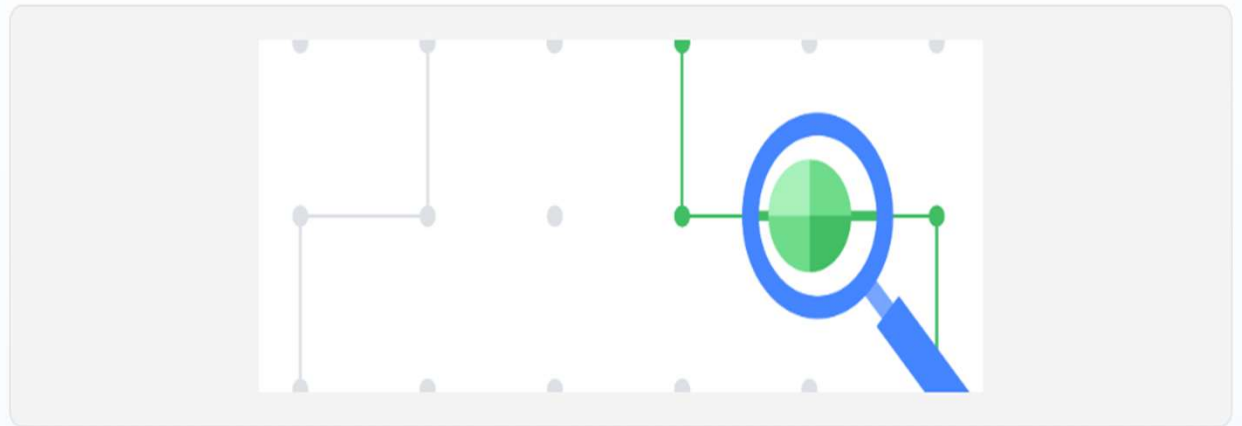
## RESULTS



Travel\_Agent 07:23 PM

Welcome to Travel\_Agent

Change this description to reflect your particular agent



Type something...





# RESULTS

## 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: 07:19 PM

Are there any current travel restrictions, visa requirements, or health advisories I should be aware of?



Travel Agent 07:19 PM

To get the most accurate and up-to-date information, I recommend checking official government resources. Here are some links to relevant pages:

1. [Travel Advice and Advisories - Travel.gc.ca](#): This is the official source of travel information and advice from the Government of Canada.
2. [Travel Advisories](#): The U.S. Department of State provides travel advisories for U.S. citizens.
3. [Travel advice and advisories for United States \(USA\)](#): Specific advice for traveling to the United States from Canada.
4. [International Travel](#): U.S. Department of State's page on international travel, including services for U.S. citizens abroad.
5. [COVID-19: Travel, testing and borders - Travel.gc.ca](#): Information on COVID-19 travel requirements and advisories from the Government of

Type something...



# RESULTS

## Deployed AI Agent

Travel\_Agent ✓ Deployed Online

API reference

Test

**Preview**

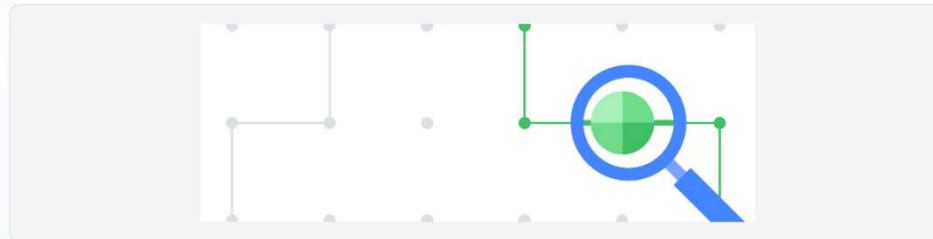
New chat +



Travel\_Agent 07:23 PM

Welcome to Travel\_Agent

Change this description to reflect your particular agent



Type something...



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## CONCLUSION

- **Enhanced Convenience and Personalization:**

The Travel Planner Agent simplifies complex travel planning by offering personalized recommendations, real-time updates, and dynamic itinerary management tailored to individual preferences.

- **Improved Travel Experience:**

By integrating live data sources such as weather, transport, and local guides, the agent ensures a smoother, more informed, and enjoyable travel experience from start to finish.

- **Broad User Applicability:**

With its intuitive interface and smart features, the agent caters to a wide range of travelers—from solo adventurers to families and business professionals—making it a versatile solution for modern travel needs.

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## FUTURE SCOPE

- Voice Integration
- AR Navigation
- Language Localization
- Predictive Planning
- Sustainable Travel
- Social Itineraries

# IBM CERTIFICATIONS

IBM **SkillsBuild**

Completion Certificate



This certificate is presented to

SAKSHAM Saksham

for the completion of

**Getting Started with Artificial Intelligence**

(PLAN-E624C2604060)

According to the Your Learning Builder - Plans system of record

**Completion date:** 18 Jul 2025 (GMT)

IBM **SkillsBuild**

Completion Certificate



This certificate is presented to

SAKSHAM Saksham

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

IBM **SkillsBuild**

Completion Certificate



This certificate is presented to  
**SAKSHAM Saksham**

for the completion of

**Journey to Cloud: Envisioning Your Solution**

(PLAN-32CB1E21D8B4)

According to the Your Learning Builder - Plans system of record

**Completion date:** 19 Jul 2025 (GMT)





Git hub link : [https://github.com/Sakshamm470/IBM\\_Project\\_Travel\\_Agent\\_.git](https://github.com/Sakshamm470/IBM_Project_Travel_Agent_.git)

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**THANK YOU**