

CAPSTONE PROJECT

TRAVEL AGENT

Presented By: Kratika Gupta

Student name : Kratika Gupta

College Name & Department : Ajay Kumar Garg Engineering College
&
CSE(DS)

OUTLINE

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

PROBLEM STATEMENT

Planning a personalized trip is often time-consuming and overwhelming due to the need to coordinate destinations, budgets, transport, accommodations, weather, and bookings. Without intelligent assistance, travelers struggle to manage and optimize their travel experience.

Proposed Solution:

An AI-powered **Travel Planner Agent** that uses IBM Granite and IBM Cloud Lite services to understand user preferences and deliver personalized travel plans. It suggests destinations, builds day-wise itineraries, recommends transport and stays, integrates real-time weather and maps, manages bookings, and provides alerts—making trip planning efficient, intelligent, and seamless.

TECHNOLOGY USED

IBM cloud lite services

Natural Language Processing (NLP)

Retrieval Augmented Generation (RAG)

IBM Granite model

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 dramatically simplify travel planning, reduce decision fatigue, personalize every aspect of a trip, and ensure real-time adaptability—empowering travelers to focus on the experience rather than logistics.

Unique features:

Personalized itinerary generation based on user's preferences, budget, and travel history

Real-time integration with weather, transport, and accommodation APIs

Smart destination recommendation using IBM Granite AI understanding of interests and constraints

Dynamic schedule optimization based on live updates and alerts (e.g., delays, closures)

Interactive map-based planning with route suggestions and points of interest

On-trip assistant for rebooking, last-minute changes, or emergency support

END USERS

- Academic Researchers
- Research Institutions and Universities
- Industry R&D Teams
- Educators

RESULTS

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Kratika Gupta's Account ▾

Dallas ▾


KG

Projects / Kratika's sandbox / Agent Lab

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
New agent +

Deploy 

Build

AI

Model: granite-3-3-8b-instruct ▾



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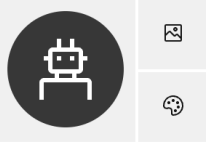
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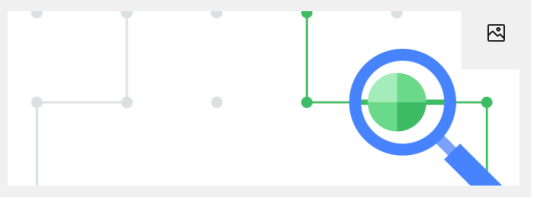
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I'm your travel agent ,plan your trip

Icon



Placeholder image



Quick start questions

Add up to 4 quick start questions that your users can select. +

Agent preview

KG You: 10:09 PM

give me 3days plan from goa to Delhi

Travel_agent 10:09 PM

3-Day Itinerary from Goa to Delhi

Day 1: Travel from Goa to Delhi

Morning:

- Transport:** Take a flight or train from Dabolim Airport (GOI) or Thivim Railway Station in Goa to Indira Gandhi International Airport (DEL) or New Delhi Railway Station.
- Estimated Duration:** Flight (1 hour), Train (24-36 hours)

Afternoon:

- Check-in:** Arrive in Delhi and check into your hotel. Suggested budget hotels: The Claridges Restaurant & Bar, Hotel Broadway, or The Leela Palace New Delhi.
- Rest:** Relax and freshen up.

Evening:

- Activity:** Explore the bustling streets of Connaught Place for shopping and local food.
- Dinner:** Enjoy a meal at Karim's Hotel, famous for its Mughlai cuisine.

RESULTS

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
New agent +

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Setup

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Name



Travel_agent

Description 37/100

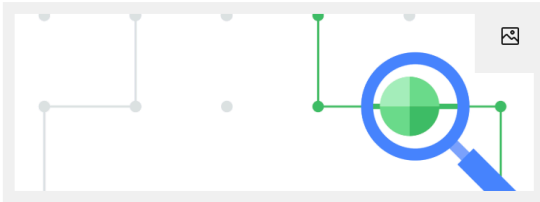
I'm your travel agent ,plan your trip

Icon



Placeholder image



Quick start questions

Add up to 4 quick start questions that your users can select. +

Agent preview

architectural marvels.

- **Brunch:** Have brunch at The Park, New Delhi, known for its international cuisine.
- **Afternoon:**
 - **Activity:** Explore the vibrant markets of Janpath and Palika Bazaar for souvenirs.
 - **Lunch:** Enjoy local delicacies at Sagar Ratna, near Janpath Market.
- **Evening:**
 - **Transport:** Depending on your flight/train schedule, head to the airport or railway station for your return journey.

Weather Forecast

To provide an accurate weather forecast, I would typically use a weather API. However, as an AI, I can't access real-time data. Please check a reliable weather forecast website or app closer to your travel dates for the most current information.

Maps and Alerts

For detailed maps and real-time travel alerts, use navigation apps like Google Maps or local alternatives such as MapmyIndia. These apps will provide you with the latest traffic updates, public transport schedules, and any travel advisories.

Additional Tips

- **Currency:** Indian Rupee (INR)

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foundation

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New agent +

Deploy

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AI

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Setup

Name

Travel_agent

Description

I'm your travel agent ,plan your trip

Icon

Placeholder image

Quick start questions

Add up to 4 quick start questions that your users can select.

Agent preview

You: 10:11 PM

give me 4 days plan to trip manali

Travel_agent 10:11 PM

4-Day Itinerary for Manali Trip

Day 1: Arrival in Manali and Local Sightseeing

Morning:

Transport:

Arrive in Manali via flight to Jolly Grant Airport (JOL) or by train at NH21 (Manali Railway Station). You can also drive from Chandigarh (approx. 200 km).

Check-in:

Settle into your hotel. Suggested budget options include Hotel Sunset View, Pine Woods Resort, or The Orchard Retreat.

Afternoon:

Activity:

Visit the Hadimba Temple, dedicated to Hidimbi, the wife of Bhima from the Mahabharata.

Lunch:

Enjoy local Manali cuisine at a nearby restaurant like The Little Buddha or Moustache Butty Shop.

Evening:

Activity:

Explore Mall Road, lined with shops, cafes, and street food stalls.

Dinner:

Dine at Cafe Suleiman, known for its delicious kebabs and North Indian

RESULTS

Deployed AI Agent

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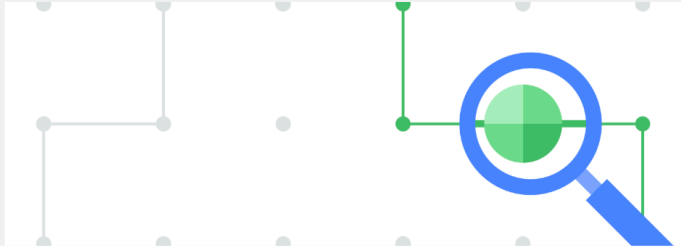
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New chat +

 travel_agent 11:58 PM


Welcome to travel_agent



Hiii.....i'm your travel agent












RESULTS


DEPLOYED AI AGENT

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API referenceTestPreview

New chat +

 You 11:37 PM
give me 2 days plan for delhi

 travel_agent 11:37 PM

Day 1: Historical and Cultural Sites

Morning:

- **Transport:** Start your day with a visit to Indira Gandhi International Airport (DEL). You can take a pre-paid taxi or use ride-hailing services to your hotel.
- **Stay:** Check into your hotel. Some budget-friendly options in Delhi are The Imperial Hotel, The Claridges, and The Leela Palace New Delhi. For mid-range, consider Hotel Broadway or Hotel Taj Palace. Luxury travelers can opt for The Oberoi, New Delhi or The Leela Ambience Convention Hotel.
- **Food:** Have breakfast at your hotel. Later, visit **Red Fort**, one of the most iconic historical sites in Delhi. Nearby, you can have lunch at **Nahaar**, which offers traditional Mughlai cuisine.

Afternoon:

CONCLUSION

The agent can generate end-to-end travel plans, manage bookings, and adapt itineraries in real time.

It saves time by automating complex tasks like destination research, weather tracking, and transport coordination.

Travel Planner Agents enhance convenience, personalization, and confidence in trip planning for both casual and professional travelers. The agent can generate end-to-end travel plans, manage bookings, and adapt itineraries in real time.

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FUTURE SCOPE

- Multilingual Travel Assistance
- Voice-Activated Travel Planner
- Real-Time Group Travel Coordination
- Smart Trip Insights & Personal Trends
- Integration with Booking & Tourism Platforms
- AR Navigation & Local Guide Integration

IBM CERTIFICATIONS

In recognition of the commitment to achieve professional excellence



Kratika Gupta

Has successfully satisfied the requirements for:

Getting Started with Artificial Intelligence

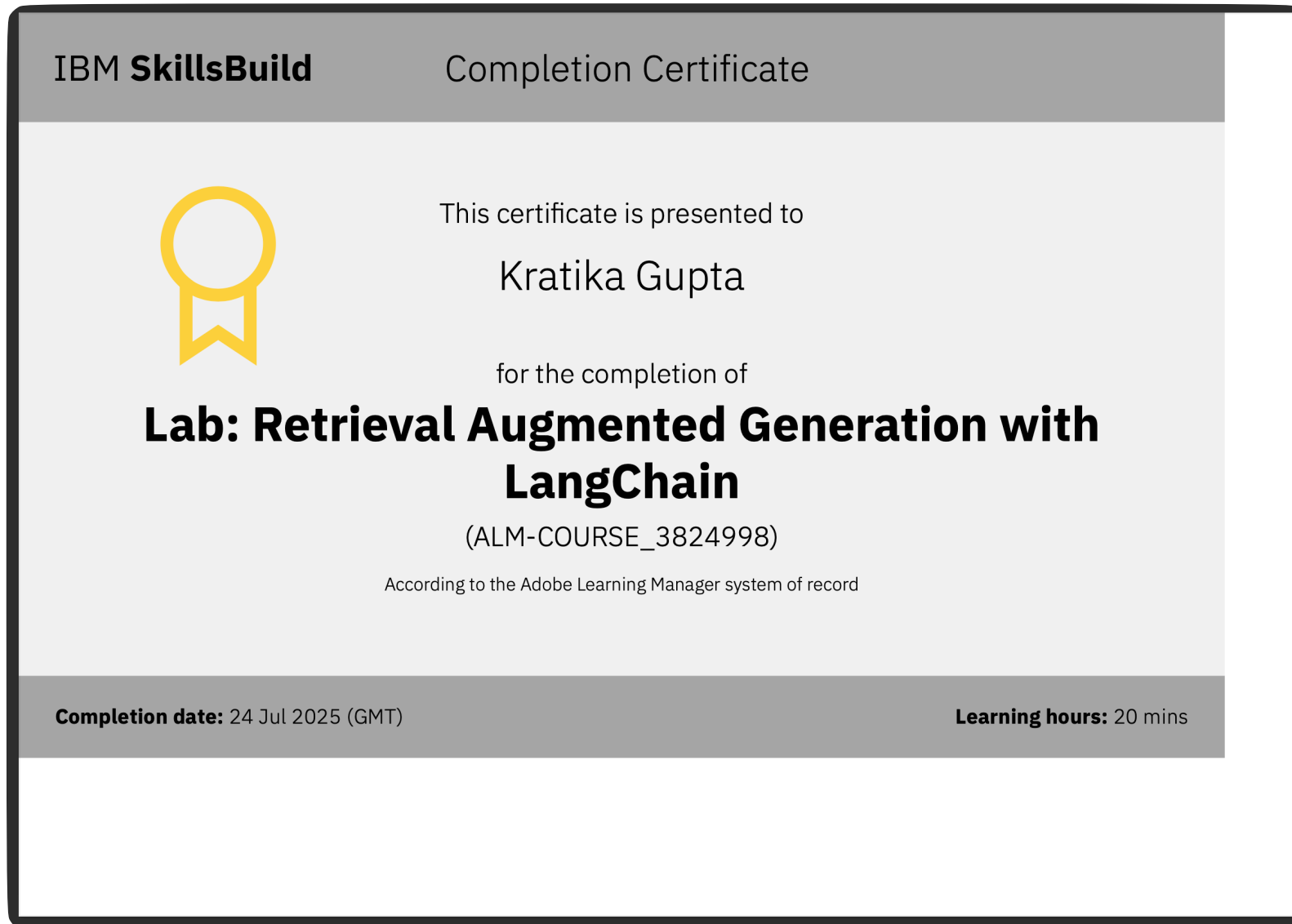


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Attach your RAG LAB certificate here



GITHUB LINK

- Github link-
- <https://github.com/kratika182004/Travel-Agent>



THANK YOU

