

# IBM HACKATHON PROJECT

## TRAVEL AI AGENT

### **Presented By:-**

**Student name : Rahul Kumar Sah**

**College Name : GEC - Gandhi Engineering College  
Bhubaneswar , Odisha**

# OUTLINE

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

# PROBLEM STATEMENT

Planning a trip involves juggling multiple tasks like finding destinations, comparing accommodations, checking weather, managing bookings, and aligning everything with personal preferences and budget. This process is often time-consuming, overwhelming, and error-prone.

## Proposed Solution:

Introducing TravelBuddy Agent, an AI-powered assistant built using Watsonx.ai Studio on IBM Cloud.

It:

- Understands user preferences, budgets, and constraints
- Generates personalized itineraries and travel suggestions
- Integrates live weather, maps, and local guide data
- Manages bookings and real-time travel alerts

- Travel Buddy turns complex travel planning into a smooth, personalized experience—powered by IBM’s Granite models and cloud services.

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# TECHNOLOGY USED

- IBM cloud lite services
- IBM Cloud Object Storage
- Natural Language Processing (NLP)
- Retrieval Augmented Generation (RAG)
- IBM Granite model

- LangChain
- ReAct

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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 TravelBuddy (Travel AI Agent) revolutionizes trip planning by eliminating guesswork and fragmentation. It empowers users to plan entire journeys in minutes using AI, delivering real-time, personalized, and optimized travel experiences—effortlessly.

### Unique features:

- **Personalized itinerary creation** based on preferences, budget, and time
- **Real-time integration** with weather, maps, and local guides
- **Smart booking assistant** for flights, hotels, and attractions
- **Instant alerts** for delays, disruptions, or weather changes
- **On-the-go optimization** to reschedule or reroute plans automatically
- **Conversational interface** powered by Watsonx and IBM Granite for natural user interaction



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## END USERS

- ❖ **Solo Travelers & Tourists** – for personalized trip planning without hiring travel agents
- ❖ **Students & Backpackers** – to manage budget-friendly travel with minimal planning effort
- ❖ **Families** – for seamless coordination of multi-day, multi-person itineraries
- ❖ **Business Travelers** – to optimize tight schedules, manage bookings, and receive live alerts
- ❖ **Travel Agencies** – to enhance customer service through AI-powered itinerary

suggestions

❖ **Frequent Flyers** – to automate repetitive planning and improve travel efficiency

# RESULTS

Deployment spaces / BuddyDeployed / TravelBuddy /


TravelBuddy Deployed Online

API reference Test **Preview**

TravelBuddy 11:23 AM

Welcome to TravelBuddy

Change this description to reflect your particular agent



Quick start samples

Help me plan a 7-day trip to Japan →



What documents do I need for international travel →


What's the current exchange rate for euros? →

Best street food to try in Mumbai →

Type something...

# RESULTS


[Projects](#) / [Agentic\\_AI](#) / [Agent Lab](#)Share feedback βUnsaved New agent +Deploy 

 Build >


Agent preview

You can also find street food vendors near crowded joints and busy areas. Enjoy your culinary adventure in Mumbai!

► How did I get this answer?

 You: 11:04 AM

plan me a budget friendly short trip to kerala just 3 days

 TravelBuddy 11:04 AM



Sure, I can help you plan a budget-friendly 3-day trip to Kerala. Here's a suggested itinerary:

**Day 1: Arrival in Kochi**

- **Morning:** Arrive in Kochi and check into your budget accommodation.
- **Afternoon:** Visit the Chinese Fishing Nets and Fort Kochi. Explore the local markets and try some street food.
- **Evening:** Enjoy a traditional Kathakali dance performance.

**Day 2: Munnar**

- **Morning:** Take an early morning bus to Munnar (approximately 4 hours).

Type something...  

# RESULTS

Projects / Agentic\_AI / Agent Lab

Share feedback



Unsaved



New agent +



Build >

Agent preview



- **Evening:** Enjoy a traditional Kathakali dance performance.

## Day 2: Munnar

- **Morning:** Take an early morning bus to Munnar (approximately 4 hours).
- **Afternoon:** Visit the Tea Museum and explore the tea plantations.
- **Evening:** Relax and enjoy the scenic views.

## Day 3: Alleppey

- **Morning:** Take a bus to Alleppey (approximately 4 hours).
- **Afternoon:** Enjoy a budget-friendly houseboat ride on the backwaters.
- **Evening:** Depart for your return journey.

## Budget Breakdown:

- **Accommodation:** Approximately INR 1000-1500 per night for budget hotels.
- **Transportation:** Bus fares are generally affordable, around INR 200-300 per trip.

# RESULTS

IBM watsonx Upgrade ? ? Uttam Rawat's Account London UR

Projects / Agentic\_AI / Agent Lab Share feedback Unsaved New agent + Deploy

Build > Agent preview

- **Accommodation:** Approximately INR 1000-1500 per night for budget hotels.
- **Transportation:** Bus fares are generally affordable, around INR 200-300 per trip.
- **Food:** Street food and local eateries can cost around INR 100-200 per meal.
- **Activities:** Entry fees for attractions are usually around INR 100-200. Houseboat rides can be more expensive, but shared options are available.

**Tips:**

- Book your accommodation and transportation in advance to get better deals.
- Try local cuisine for an authentic experience.
- Be mindful of your belongings, especially in crowded areas.

Enjoy your trip to Kerala! If you have any specific preferences or need more details, feel free to ask.

► How did I get this answer?

# RESULTS

The screenshot displays the 'Agent Lab' interface within a 'Projects / Agentic\_AI' workspace. The top navigation bar includes a 'Share feedback' link, a beta badge, an 'Unsaved' status indicator, a 'New agent +' button, and a 'Deploy' button. The main area is titled 'Agent preview' and shows a chat history. A user message at 11:03 AM asks for the 'Best street food to try in Mumbai'. The 'TravelBuddy' agent responds at the same time with a list of eight popular Mumbai street foods. At the bottom, there is a text input field with the placeholder 'Type something...' and a send button.

Projects / Agentic\_AI / Agent Lab

Share feedback β Unsaved 📁 New agent + Deploy 🚀

Build > Agent preview

**UR** You: 11:03 AM  
Best street food to try in Mumbai

**TravelBuddy** 11:03 AM  
Here are some of the best street food options in Mumbai:

1. **Vada Pav:** A popular street food in Mumbai, vada pav is a deep-fried potato patty served in a bun with chutney.
2. **Bhelpuri:** A savory snack made of puffed rice, vegetables, and a tangy tamarind sauce.
3. **Sev Puri:** A crispy snack made of puffed rice, potatoes, onions, and chutney.
4. **Pav Bhaji:** A thick vegetable curry served with a soft bread roll.
5. **Kebabs and Rolls:** Marinated and grilled meat served with naan or in a wrap.
6. **Chai:** A sweet and spicy tea that is a staple in Mumbai.
7. **Pani Puri:** A crispy, hollow puri filled with a mixture of flavored water, tamarind chutney, chili, chaat masala, potato, onion, and chickpeas.
8. **Medu Vada:** A savory fried snack made from lentils.

Type something... 🗑️ ➤

# RESULTS

## Deployed AI Agent

The screenshot displays the IBM Watsonx interface for a deployed AI agent named 'TravelBuddy'. The top navigation bar includes the IBM Watsonx logo, an 'Upgrade' button, and user account information for 'Uttam Rawat's Account' in 'London'. The breadcrumb trail shows 'Deployment spaces / BuddyDeployed / TravelBuddy /'. Below the breadcrumb, the agent 'TravelBuddy' is shown with a green 'Deployed' status and an 'Online' indicator. There are tabs for 'API reference', 'Test', and 'Preview', with 'Preview' being the active tab. The main chat area shows a welcome message from 'TravelBuddy 11:23 AM' and a prompt to 'Change this description to reflect your particular agent'. Below this is an illustration of two blue paper airplanes flying towards each other. Underneath the illustration, there are four 'Quick start samples' buttons: 'Help me plan a 7-day trip to Japan', 'What documents do I need for international travel', 'What's the current exchange rate for euros?', and 'Best street food to try in Mumbai'. At the bottom, there is a text input field with the placeholder 'Type something...' and a 'Send' button.

foundation



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## CONCLUSION

- The agent creates end-to-end personalized travel plans by understanding user preferences, budget, and constraints.
- It saves time by automating destination suggestions, itinerary building, and booking assistance.
- Travel Buddy Agent enhances convenience, accuracy, and user satisfaction by offering real-time updates and

dynamic schedule optimization.

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## GITHUB LINK

[View my work on GitHub](#)

<https://github.com/rahulsah009/travelbuddy>

## FUTURE SCOPE

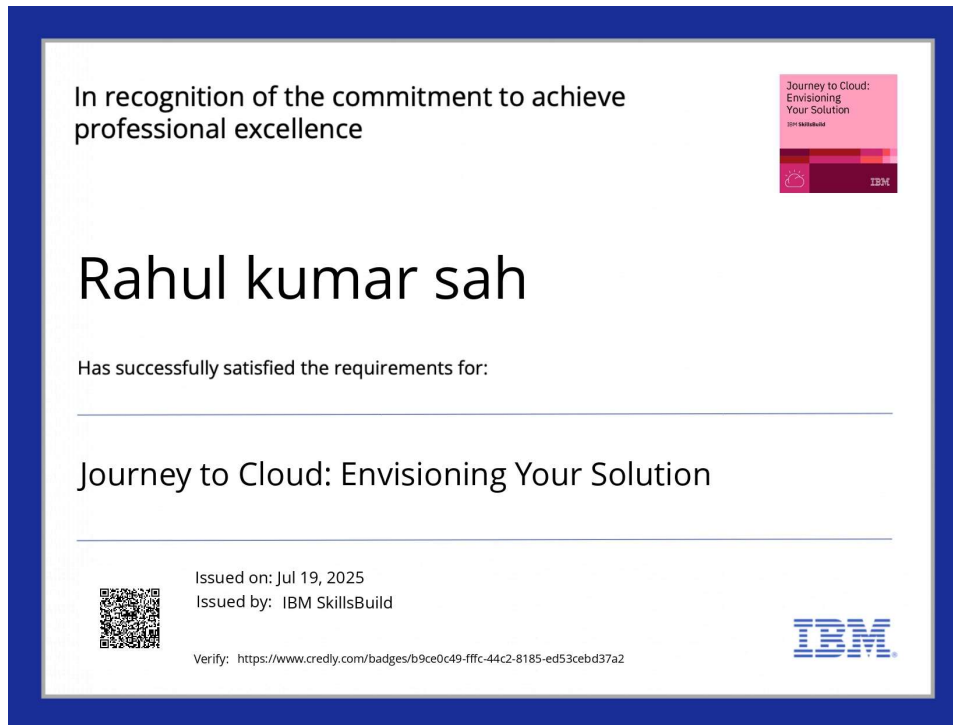
- Voice-enabled assistant for hands-free travel planning using natural conversations.
- Multilingual support for users across different regions and languages.
- AR/VR integration for virtual tours of destinations before booking.
- Carbon footprint tracking to promote eco-friendly travel choices.
- Collaborative travel planning with group itinerary sharing and sync.

- Integration with wearables for real-time travel notifications and navigation

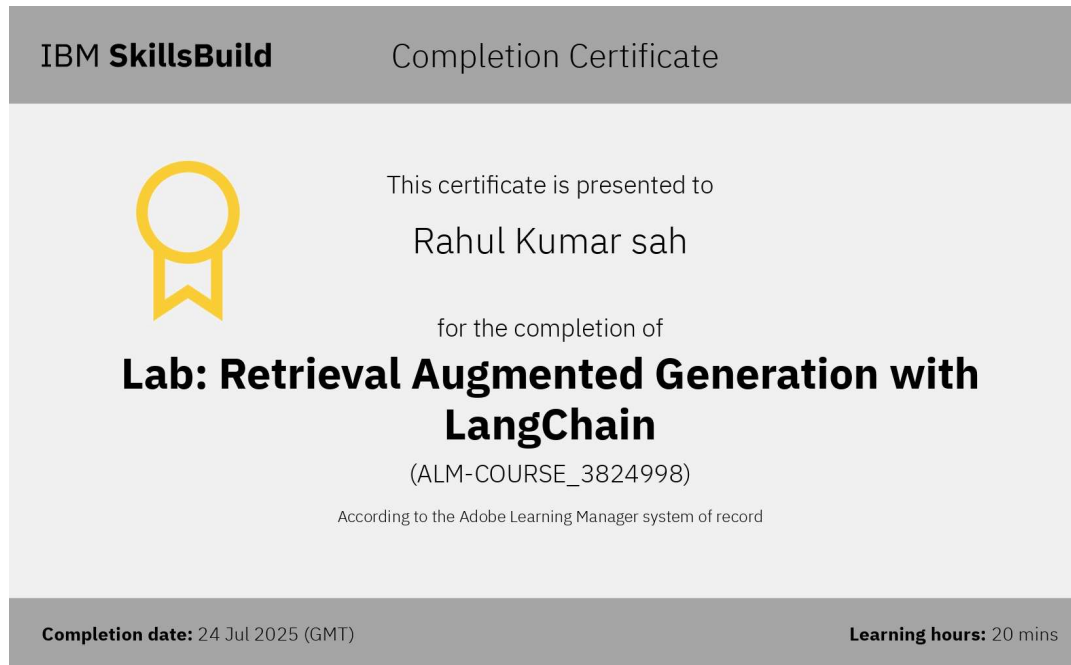
# IBM CERTIFICATIONS



# IBM CERTIFICATIONS



# IBM CERTIFICATIONS







**THANK YOU**