IBM HACKATHON PROJECT

TRAVEL AI AGENT

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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.

TECHNOLOGY USED

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

- LangChain
- ReAct

IBM CLOUD SERVICES USED

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

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

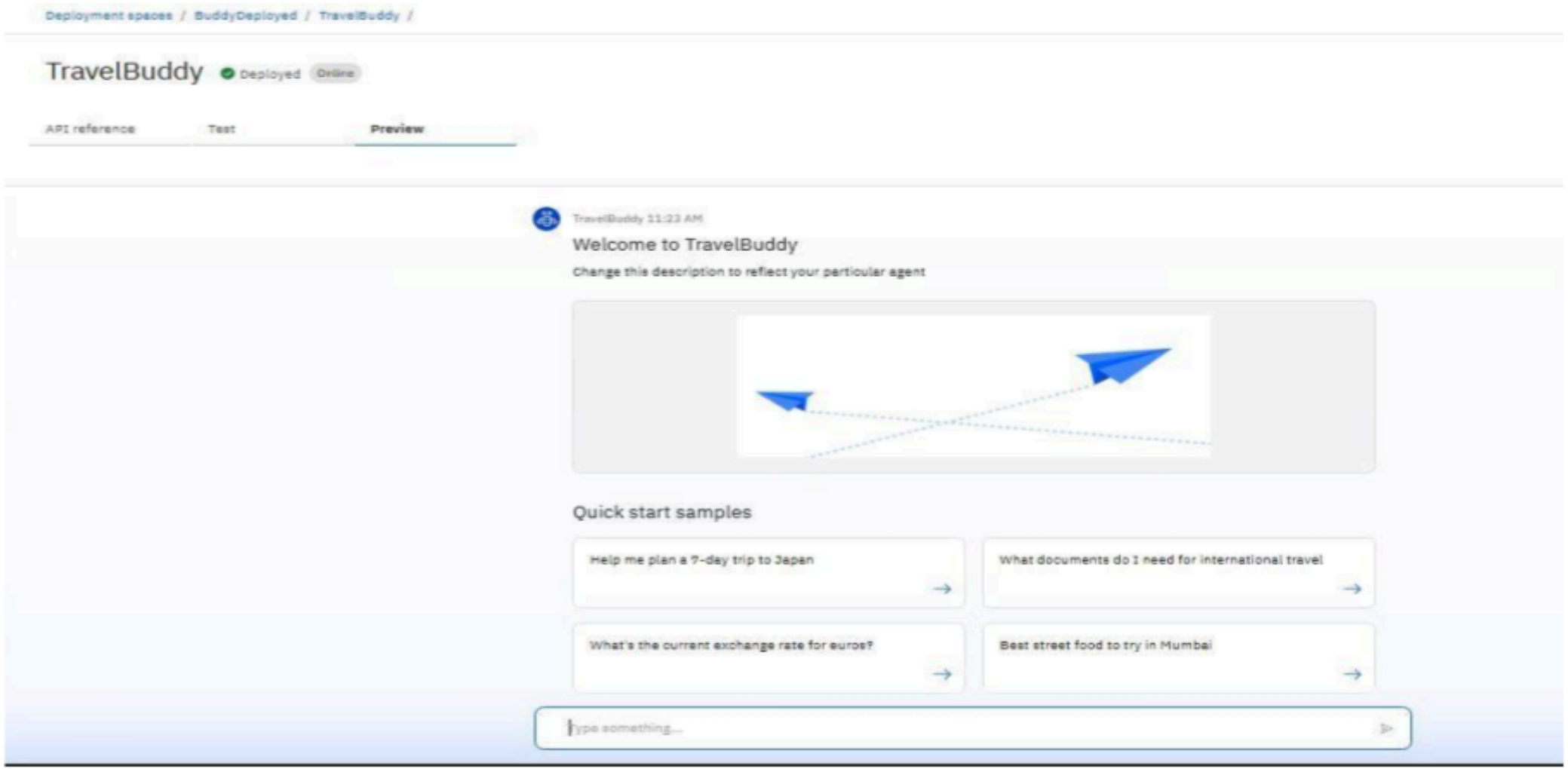
END USERS

- **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

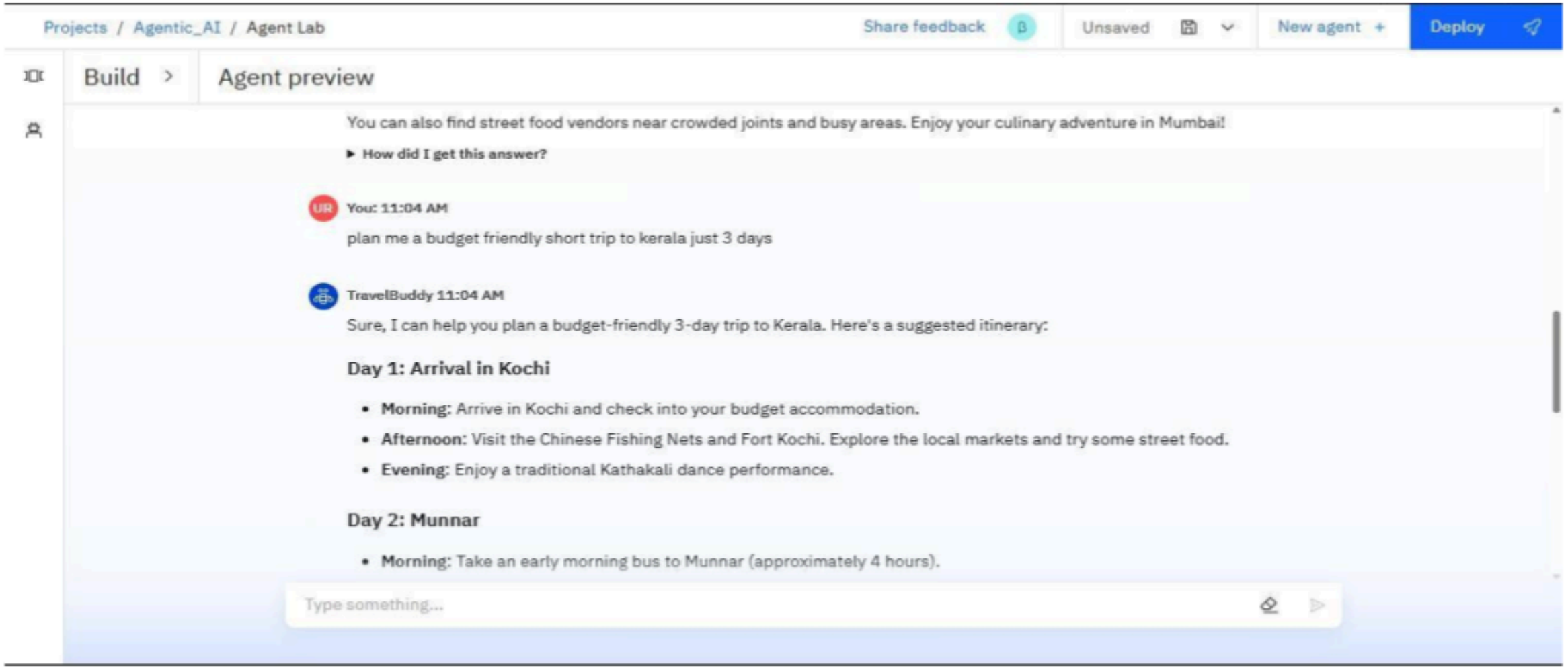
- **Frequent Flyers** – to automate repetitive planning and improve travel efficiency

RESULTS



edunet foundation

RESULTS



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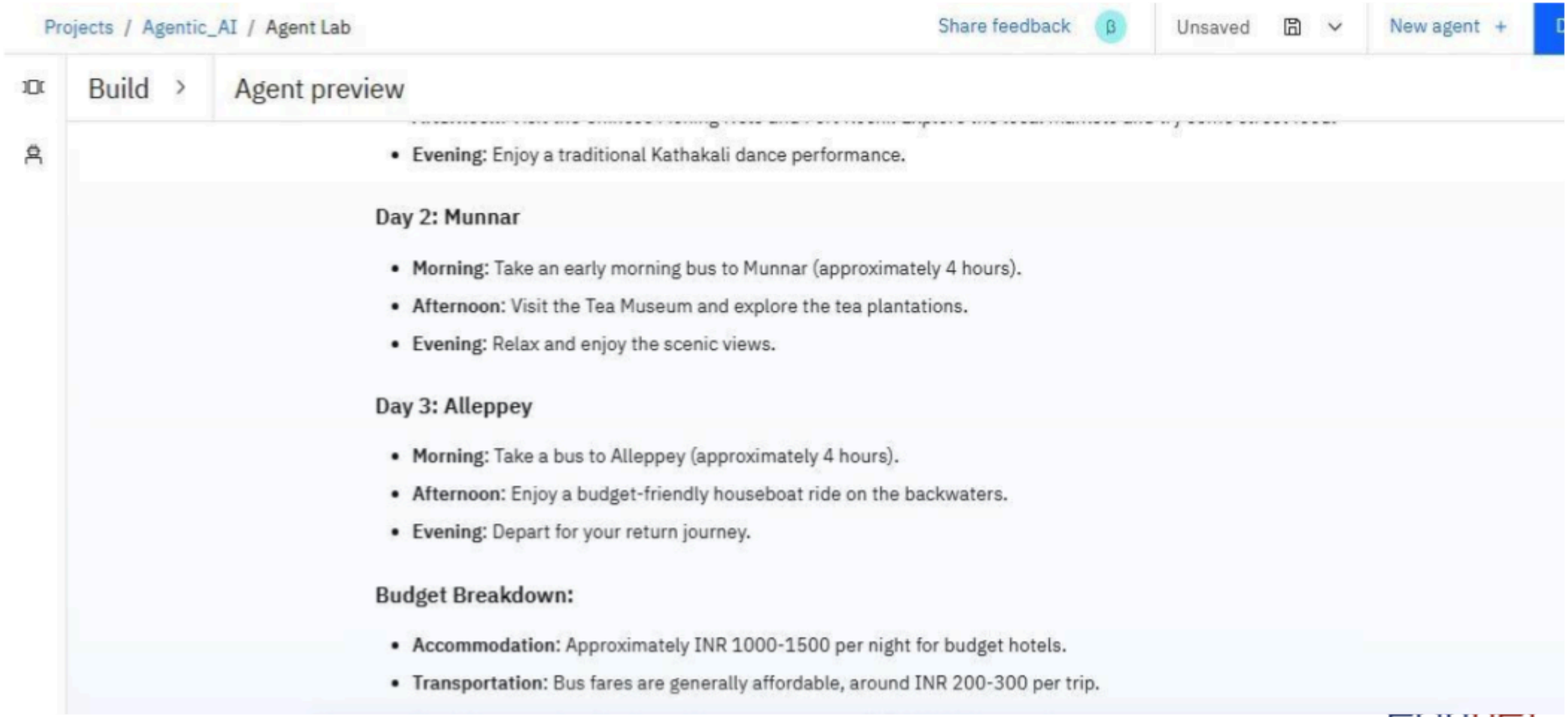
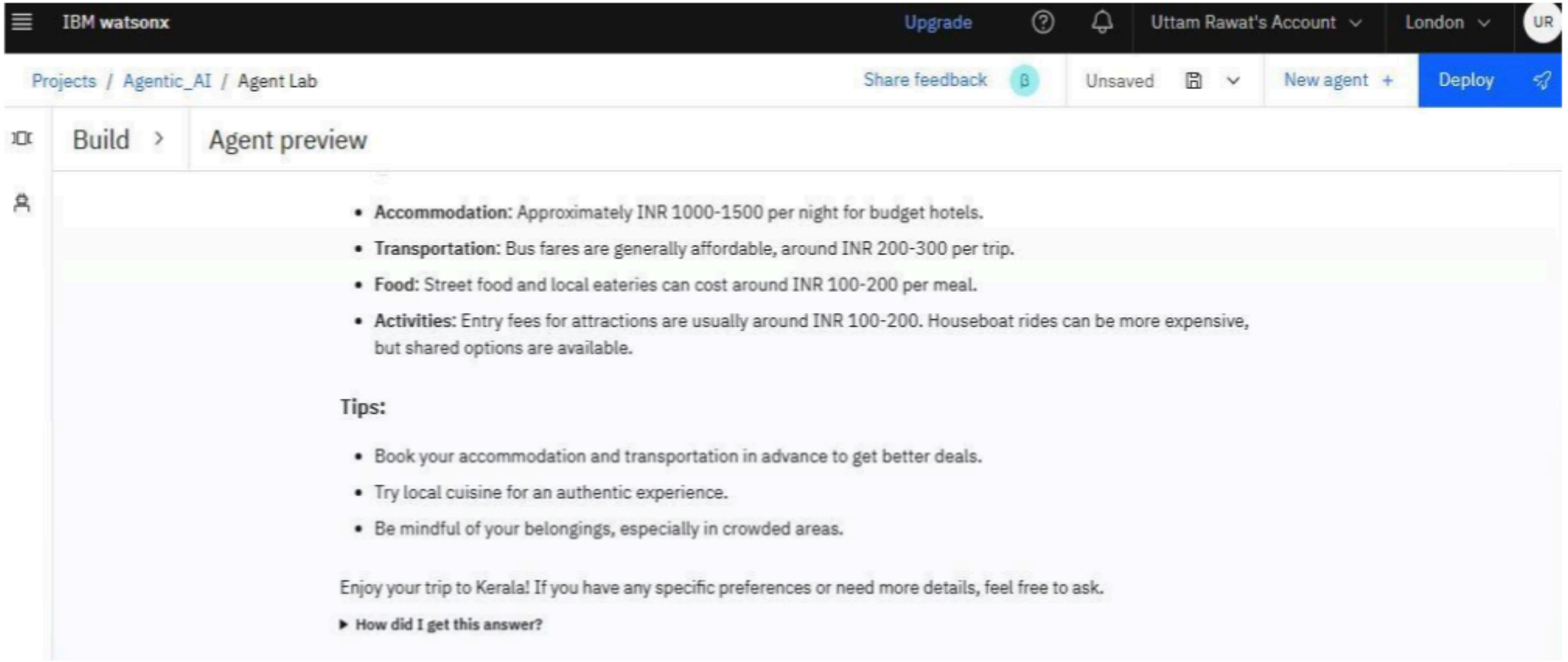
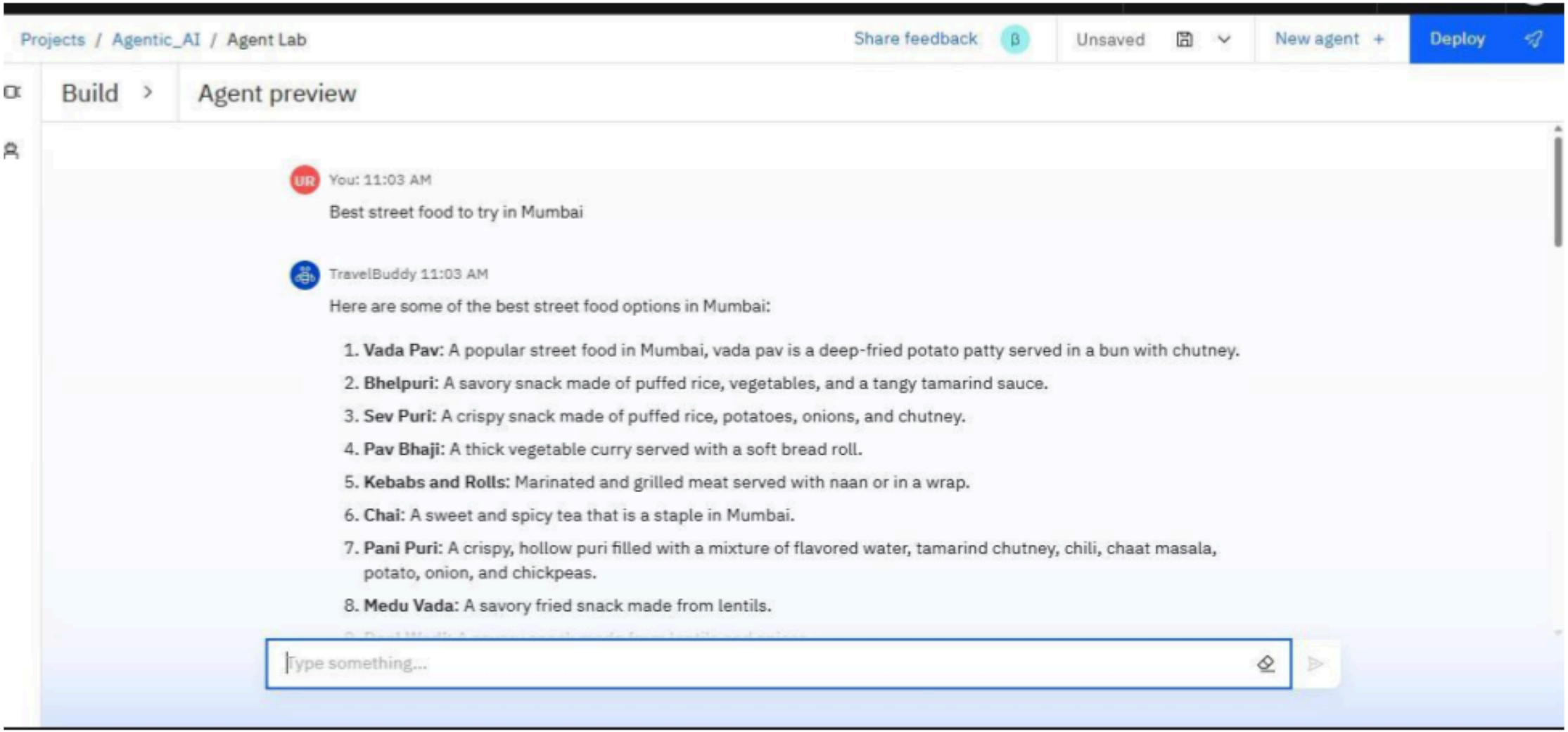
RESULTS


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

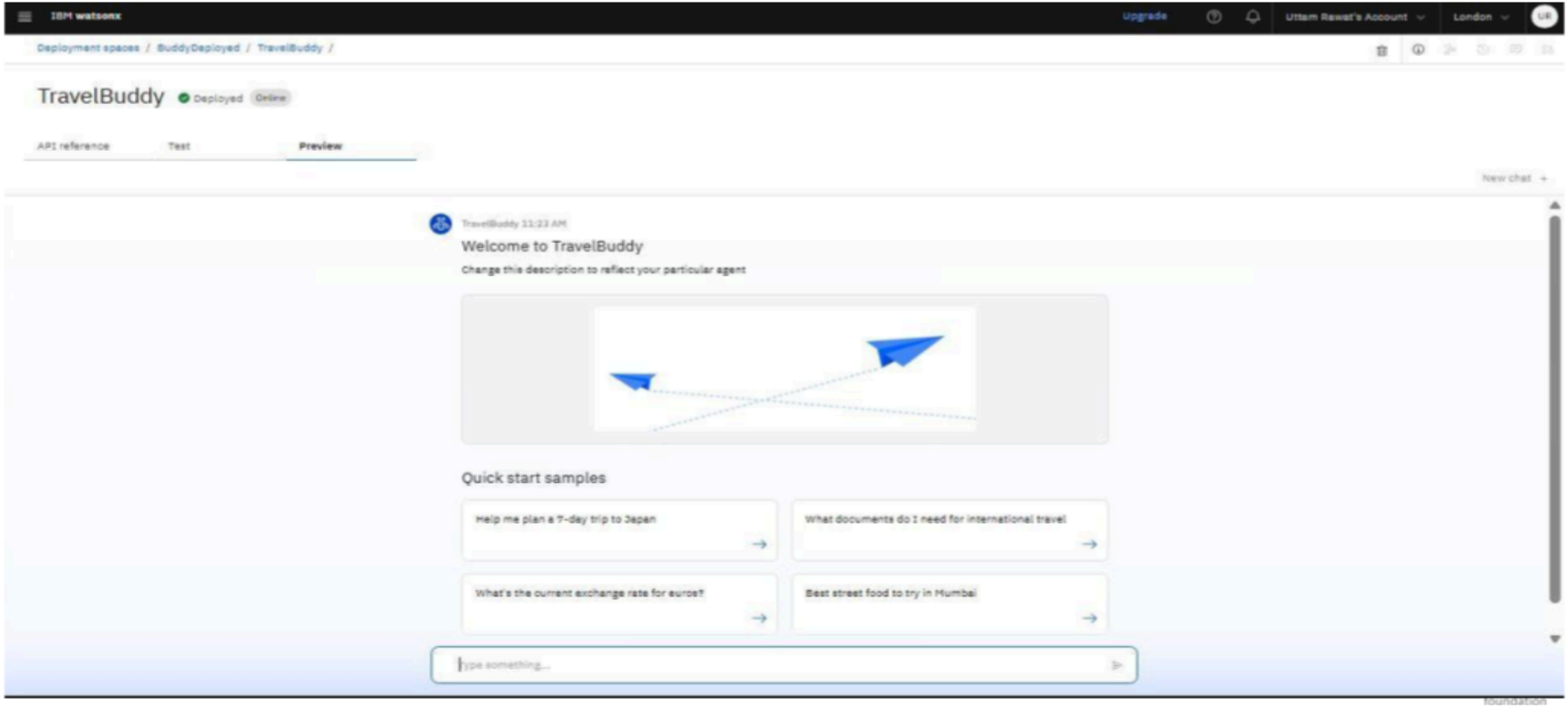


RESULTS



RESULTS

Deployed AI Agent



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.

GITHUB LINK

View my work on GitHub

https://github.com/the-introvert20/travelbuddy.git

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

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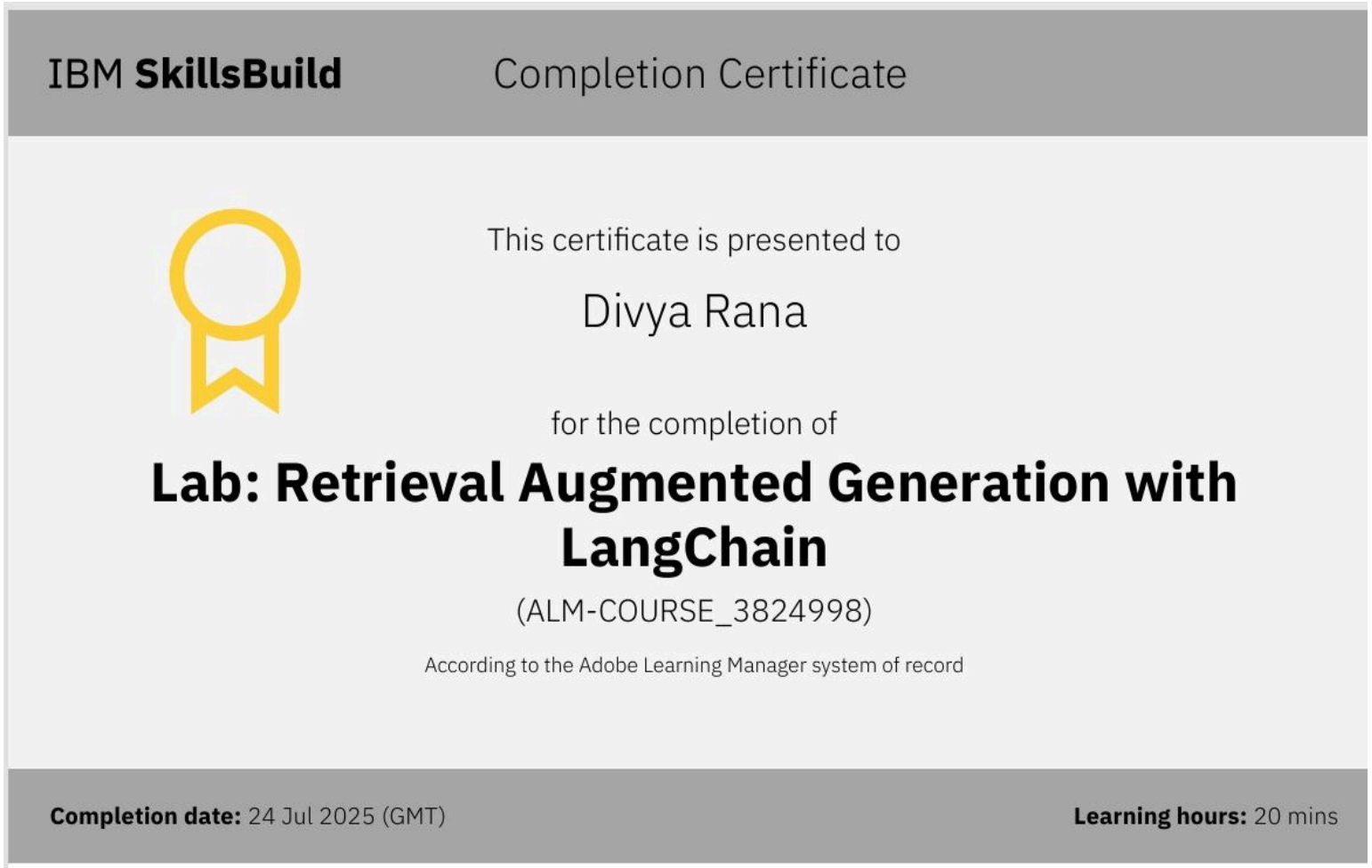

IBM **SkillsBuild** Completion Certificate

This certificate is presented to

Divya Rana

for the completion of

Lab: Retrieval Augmented Generation with LangChain

(ALM-COURSE_3824998)

According to the Adobe Learning Manager system of record

Completion date: 24 Jul 2025 (GMT) **Learning hours:** 20 mins

THANK YOU

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foundation