IBM HACKATHON PROJECT

TRAVEL AI AGENT

Presented By:
Student name :Sanket Banate
College Name & Department : MIT ACADEMY OF ENGINEERING
ALANDI, PUNE . COMPUTER ENGINEERING

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OUTLINE

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- Wow factor
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PROBLEM STATEMENT

Planning a trip can be overwhelming and time-consuming, especially with the abundance of travel information scattered across multiple platforms. Users often struggle to decide on destinations, create efficient itineraries, find reliable accommodation or transport options, and adapt plans based on seasonal, weather, or budget constraints. The lack of personalised and real-time travel guidance results in missed opportunities, inefficient plans, or increased costs—making travel planning a frustrating experience for many.

Proposed Solution:

The proposed solution is an intelligent **Travel Planner Agent**, an AI-powered assistant built using IBM Watsonx.ai and IBM Granite. The agent interacts with users in natural language and provides personalised travel recommendations such as: Destinations based on season, budget, and interest Day-wise itineraries, Suggested transport and accommodation, Local experiences, food, and weather tips. It integrates live data from sources like Google Search, DuckDuckGo, weather APIs, and travel blogs to ensure accurate and timely responses.

TECHNOLOGY USED

1. IBM Granite (LLM – Large Language Model)

- Model: `granite-3-3b-instruct`
- Purpose: Natural Language Understanding & Generation
- Supports Retrieval-Augmented Generation (RAG) for enhanced accuracy.

2. IBM Watsonx.ai

- Platform to access and interact with IBM Granite models.
- Enables prompt execution, tool integration, and AI assistant logic.
- Running the AI model with user prompts
- Configuring instructions and behaviour constraints (e.g., travel-only scope)

3. IBM Cloud Lite

- Hosting and deployment environment.
- Deploy the AI agent backend
- Host and serve APIs or frontend components
- Ensure secure and scalable access to the assistant

IBM CLOUD SERVICES USED

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

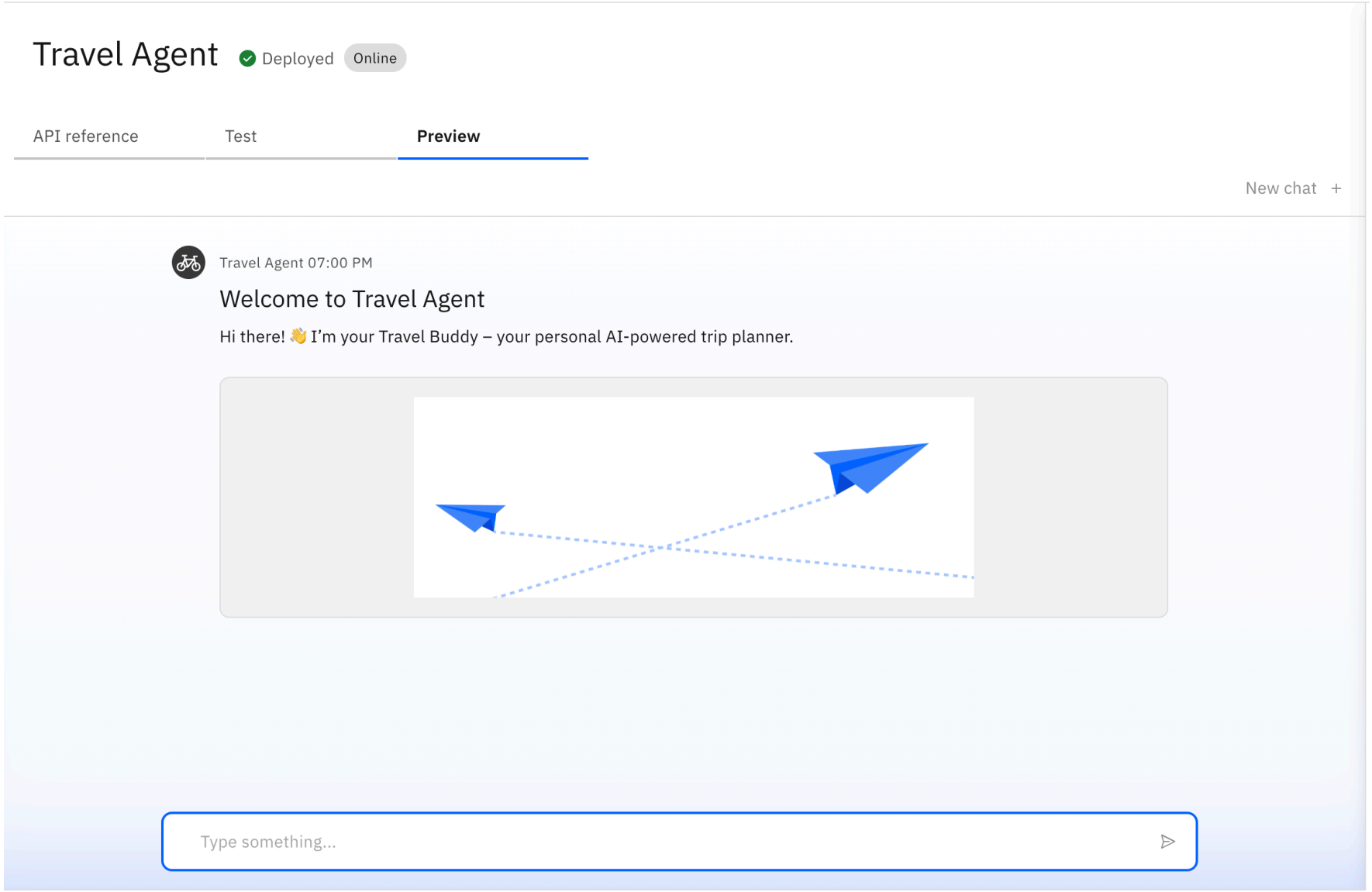
WOW FACTORS

- **Conversational Trip Planning:**
  Users can plan entire trips simply by chatting with the AI — no need to visit multiple travel websites or apps.
- **Personalised Itinerary Generation:**
  Creates detailed, day-by-day itineraries tailored to the user's preferences, travel duration, season, and budget.
- **Real-Time Relevance via RAG:**
  Uses Retrieval-Augmented Generation (RAG) to dynamically include live search results, seasonal travel tips, and local recommendations.
- **Smart Destination Matching:**
  Suggests travel locations based on weather, time of year, interests (e.g., beach, adventure, culture), and budget constraints.
- **Local Experience & Culture Embedding:**
  Recommends not just tourist attractions, but also food, festivals, packing tips, and safety advice — enhancing the cultural depth of the plan.
- **Multi-source Knowledge Integration:**
  Simulates responses using data from trusted platforms like MakeMyTrip, Goibibo, RedBus, TripAdvisor, and real-time web search.
- **Budget Optimization Suggestions:**
  Offers cost-conscious alternatives for hotels, transport, and activities — perfect for students, backpackers, or budget travelers.
- **Zero-Frustration Interface:**
  Eliminates the hassle of switching between multiple apps by bringing all planning elements into a single smart assistant.

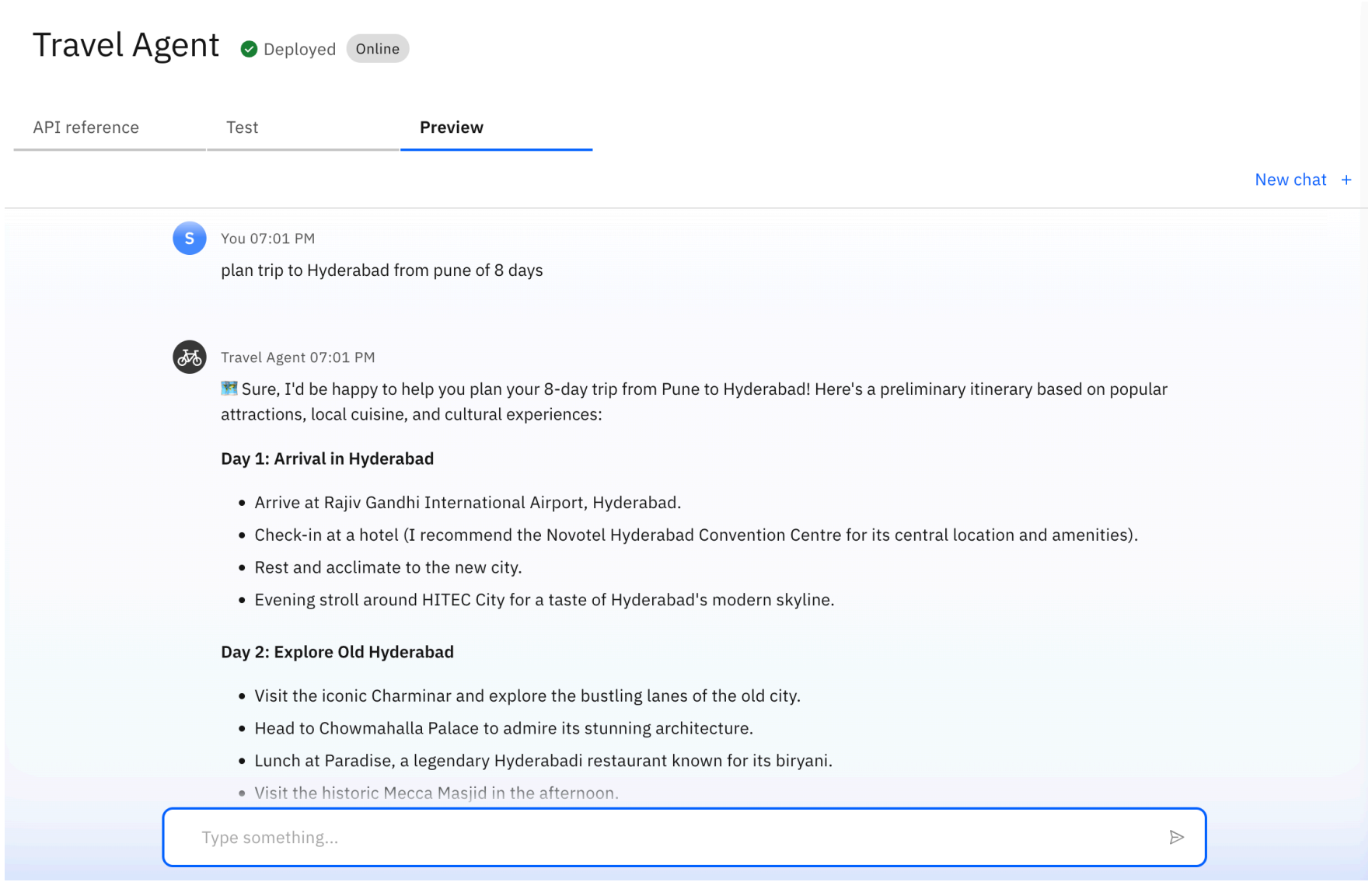
END USERS

- Students & Budget Travelers
- Working Professionals
- Families & Group Travelers
- Travel Bloggers & Content Creators
- Solo Travelers

RESULTS



RESULTS



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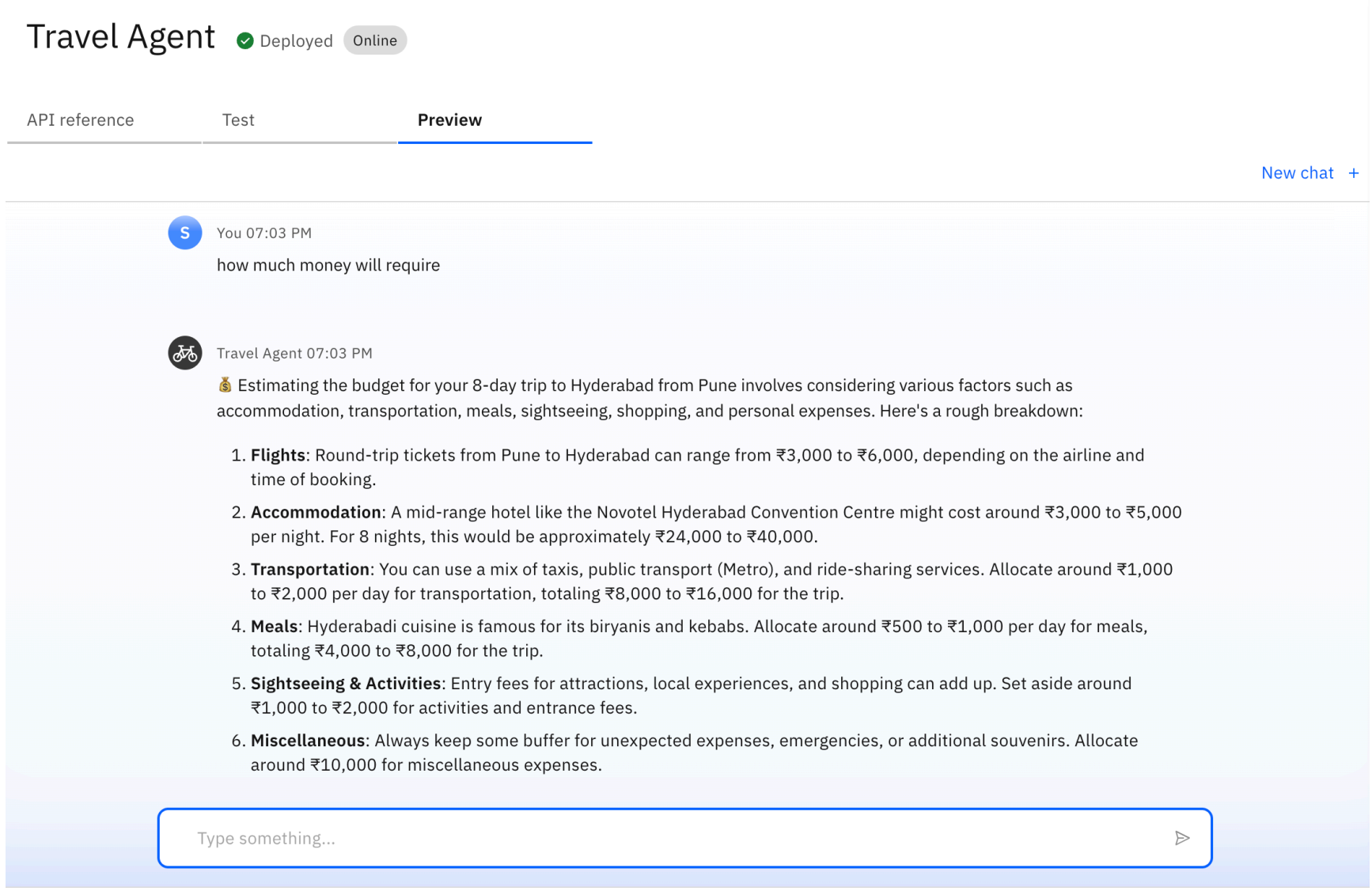
RESULTS



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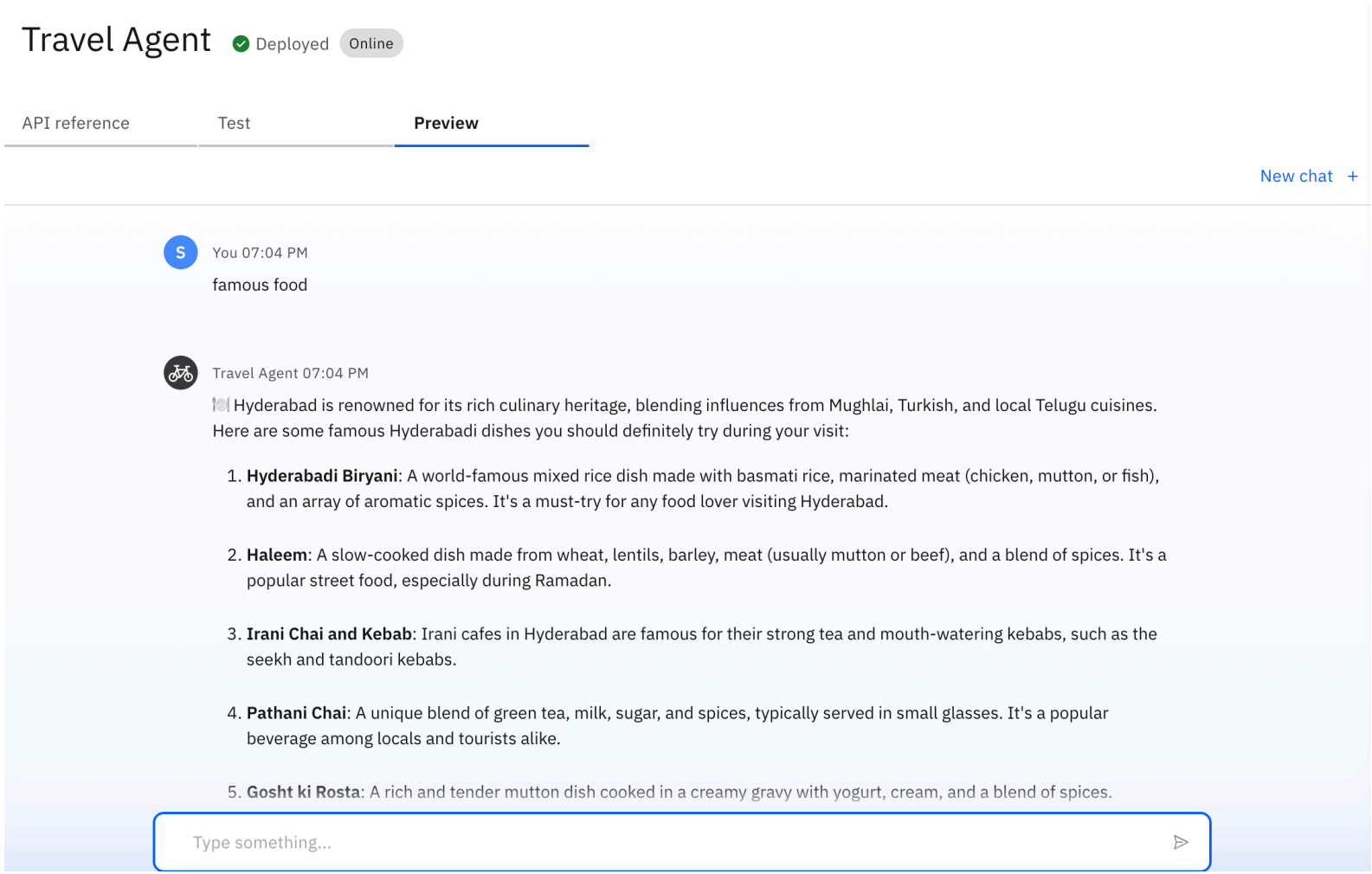
RESULTS

Deployed AI Agent



CONCLUSION

The Travel Planner Agent effectively simplifies travel planning by using the power of generative AI and retrieval-augmented intelligence. It delivers personalised, real-time answers tailored to user goals and budgets. The use of IBM Granite ensures conversational fluency, while tools like web crawlers and weather APIs enhance accuracy. The project demonstrates how Agentic AI can transform traditional trip planning into a smart, seamless experience.

GITHUB LINK

- https://github.com/Wolverine0007/Travel-Planner-AI-Agent

FUTURE SCOPE

- Add multilingual support for Indian languages
- Integrate live hotel and flight booking APIs
- Enable voice-based query input
- Add user profile & saved plans feature
- Deploy as a mobile app for wider reach

IBM CERTIFICATIONS

In recognition of the commitment to achieve professional excellence

Getting Started with Artificial Intelligence
IBM SkillsBuild

SANKET BANATE

Has successfully satisfied the requirements for:

Getting Started with Artificial Intelligence

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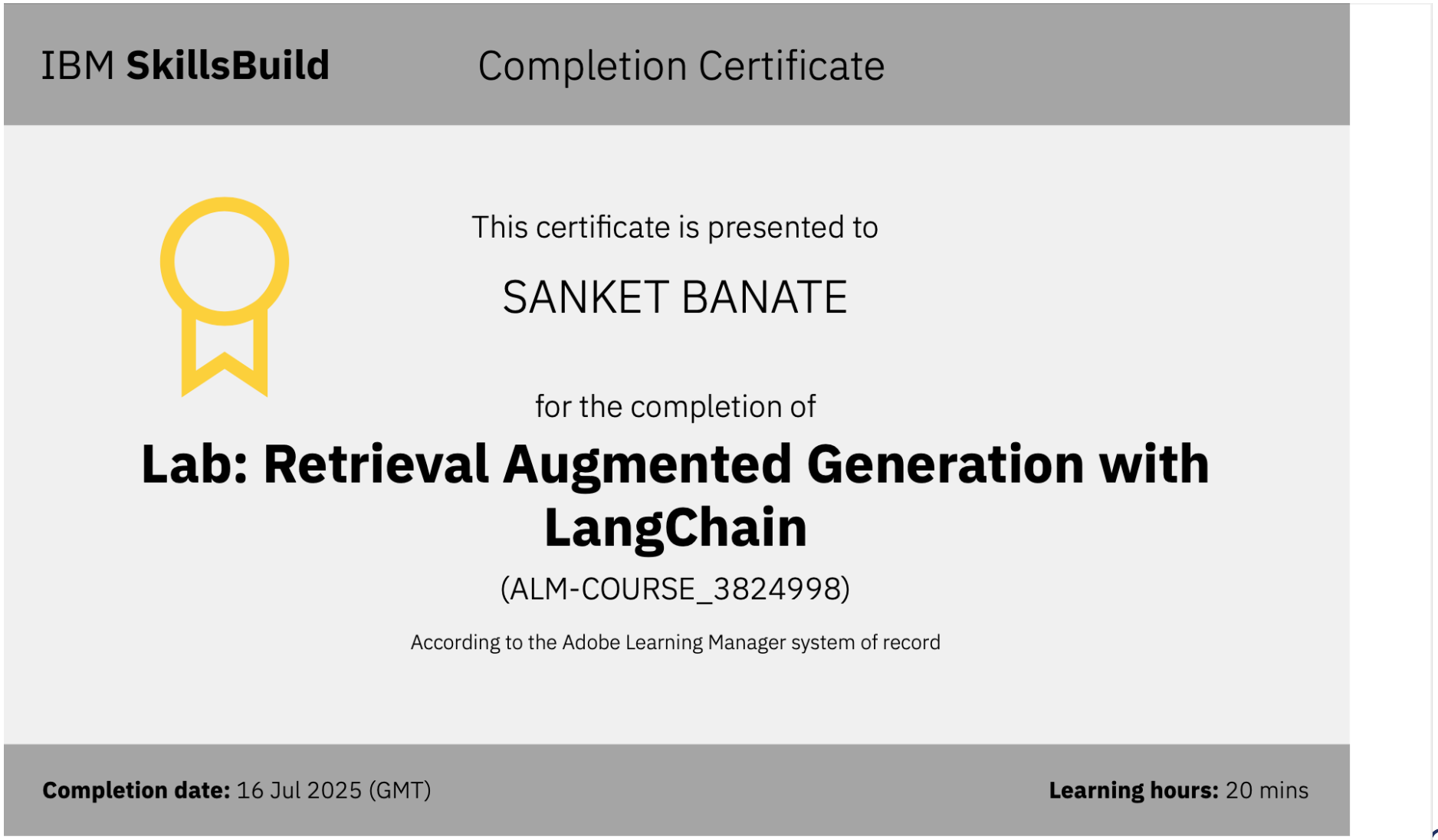

IBM **SkillsBuild** Completion Certificate

This certificate is presented to

SANKET BANATE

for the completion of

Lab: Retrieval Augmented Generation with LangChain

(ALM-COURSE_3824998)

According to the Adobe Learning Manager system of record

Completion date: 16 Jul 2025 (GMT)

Learning hours: 20 mins

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THANK YOU

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