

CAPSTONE PROJECT

TRAVEL AI AGENT

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OUTLINE

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PROBLEM STATEMENT

Travel planning can be overwhelming and time-consuming. Travelers need detailed, day-wise itineraries including activities, dining, transport, and accommodation—personalized according to dates, budget, and interests. The Travel Planner Agent addresses this by leveraging AI to generate adaptable, user-centered trip plans, saving time and improving the overall travel experience.

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: For orchestrating the agent workflow
- IBM Cloud Watsonx AI Runtime: For scalable deployment
- IBM Cloud Agent Lab: For agent prototyping and management
- IBM Granite Foundation Model: For advanced AI/LLM capabilities


WOW FACTORS



- **Personalized, adaptive travel itineraries customized for each user**—considering their budget, dates, interests, and group size for a perfect fit.
- **Detailed day-wise scheduling**—breaking each day into morning, afternoon, and evening, with specific recommended activities, timings, and logical routing.
- Integration of real-time data such as weather, local festivals/events, and the latest transport availability, ensuring itineraries are practical and up-to-date.
- **Interactive, conversational experience:** Users can adjust preferences or dates on the fly and receive updated plans instantly.
- **Comprehensive recommendations:** Not just top attractions, but also local hidden gems, eateries, hotels, and travel tips unique to each destination.
- **Built-in safety and cultural guidance:** Suggestions include local customs, precautions, and seasonal advice to maximize enjoyment and minimize risk.
- **Multilingual, multi-modal flexibility:** The agent is designed for future support of voice, text, and different languages, making it accessible worldwide.
- **Extensible and modular:** Ready for integration with external booking and payment platforms for end-to-end travel planning.







END USERS

- Independent travelers and families planning personal vacations.
- Travel agencies looking to automate and enhance itinerary generation
- Corporate event and offsite organizers.
- Tourism boards aiming for interactive destination promotion.
- Academic or educational tour planners managing group travel.

RESULTS

 IBM watsonx



Upgrade Rohit Patil's Account ▾ Dallas ▾ RP


Deployment spaces / Crafted Journeys - Travel Agent / watsonx Agent /      

watsonx Agent ✓ Deployed Online

API referenceTestPreview


New chat +

 watsonx Agent 06:16 PM
Welcome to watsonx Agent
Change this description to reflect your particular agent



Type something... 

RESULTS

Agent preview

 You: 06:18 PM

one day trip in mumbai

 Crafted Journeys 06:18 PM

One-Day Trip Itinerary in Mumbai

Morning

Activity: Start your day with a visit to the iconic Gateway of India. This historic monument is a great spot for some early morning photographs with less crowd.

Time Slot: 8:00 AM - 9:30 AM



Location: Gateway of India, Colaba, Mumbai

Nearby Coffee Shop: You can grab a cup of filter coffee or masala chai at the nearby Colaba Causeway Market.

Activity: Head to Chhatrapati Shivaji Maharaj Vastu Sangrahalaya (formerly Prince of Wales Museum) for a dose of culture and history.

Time Slot: 10:00 AM - 12:30 PM

Location: Chhatrapati Shivaji Maharaj Vastu Sangrahalaya, Mumbai



RESULTS

Deployed AI Agent

The screenshot displays the IBM watsonx interface for a deployed AI agent. The top navigation bar includes the IBM watsonx logo, an 'Upgrade' button, and user account information for 'Rohit Patil's Account' in 'Dallas'. The breadcrumb trail indicates the current location: 'Deployment spaces / Crafted Journeys - Travel Agent / watsonx Agent /'. The main heading is 'Crafted Journeys - Travel Agent', which is marked as 'Deployed' and 'Online'. Below this, three tabs are visible: 'API reference', 'Test', and 'Preview', with the 'Preview' tab being the active one. A 'New chat +' button is located on the right side of the chat area. The chat history shows a user message at 06:26 PM: 'one day trip plan for national park in mumbai'. The agent's response, also at 06:26 PM, provides a one-day trip plan for Sanjay Gandhi National Park in Mumbai, including the following steps:

1. Start your day early and head to the park.
2. Visit the Kanheri Caves, a group of ancient Buddhist caves.

CONCLUSION

- The agent simplifies and personalizes the entire travel planning process, allowing users to generate detailed, day-wise itineraries effortlessly.
- By leveraging IBM's cloud-based AI and Retrieval-Augmented Generation, it delivers accurate, up-to-date, and context-aware recommendations for every trip.
- Ultimately, the Travel Planner Agent saves users time, reduces planning stress, and ensures a more enjoyable and well-organized travel experience.

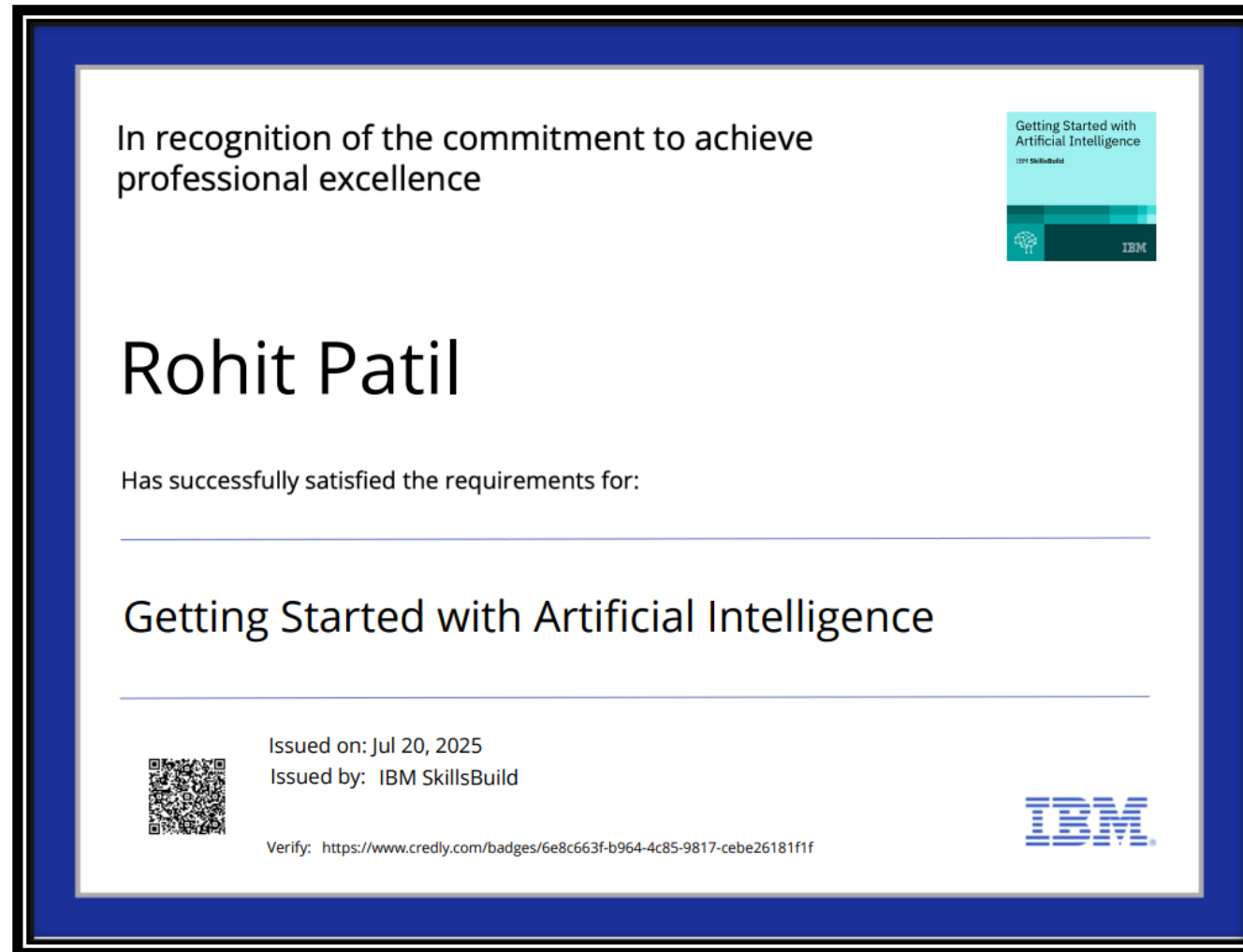
FUTURE SCOPE

- Live integration with booking and reservation APIs for hotels, flights, and experiences.
- Multi-modal expansion: support for travel photos, scanned tickets, and spoken input/output.
- Smarter, self-improving recommendations using user feedback (reinforcement learning).
- Instant notifications of weather events, closures, or delays to update plans proactively.
- Collaboration: Dedicated features for planning and coordinating group trips, shared schedules, and custom requirements.

GITHUB LINK

- Travel agent project link - https://github.com/MasterRohitPatil/Travel_Agent-Ppt

IBM CERTIFICATIONS



7/24/25, 6:35 PM

Completion Certificate | SkillsBuild

IBM SkillsBuild

Completion Certificate



This certificate is presented to

Rohit Patil

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

In recognition of the commitment to achieve
professional excellence



Rohit Patil

Has successfully satisfied the requirements for:

Journey to Cloud: Envisioning Your Solution



Issued on: Jul 20, 2025
Issued by: IBM SkillsBuild

Verify: <https://www.credly.com/badges/edc439df-2655-4e4f-b591-b2689da08bb7>





THANK YOU