
IBM PROJECT

TRAVEL PLANNER AGENT

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OUTLINE

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Problem Statement

Planning a trip can be stressful and time-consuming, especially when users must manually search for destinations, create itineraries, check the weather, and compare accommodations and transport options.

There is currently no all-in-one AI assistant that can deliver personalized, real-time travel planning based on user needs like budget, time, interests, and preferences. This gap limits user experience and efficiency, especially for casual travelers.

Technology used

- ◆ IBM Cloud Lite (Cloud Hosting)
Free-tier hosting used for deploying the AI agent and accessing Watsonx services.
- ◆ Natural Language Processing (NLP)
Enables understanding and generation of human-like travel conversations using IBM's Granite LLM.
- ◆ Retrieval Augmented Generation (RAG)
Enhances responses by combining LLM with context-specific retrieval (destinations, hotels, etc.)
- ◆ IBM Granite Foundation Model
Advanced large language model that powers the core conversation and travel planning intelligence.
- ◆ IBM Watsonx AI Studio & Runtime
Used to build, test, and deploy the travel agent with scalable endpoint access.

IBM cloud services used

- IBM Cloud Watsonx AI Studio
Used to design, test, and fine-tune the travel planning agent using LLMs
- IBM Cloud Watsonx AI Runtime
Hosted the deployed agent with secure, scalable access via API endpoints
- IBM Cloud Agent Lab
Visual tool for configuring agent roles, tools, instructions, and personality
- IBM Granite Foundation Model
- Backbone LLM model generating human-like responses and travel plans

Wow factors

Personalized Travel Itineraries

Automatically generates day-wise trip plans based on user input like location, days, and budget.

Real-Time Weather-Aware Suggestions

Uses external APIs to provide live weather updates and packing tips (e.g., carry umbrella, sunscreen).

Powered by IBM Granite Model (LLM)

Delivers human-like, intelligent responses using Watsonx's state-of-the-art foundation model.

Retrieval-Augmented Generation (RAG)

Provides more relevant, factual answers by combining LLM output with real-time location and travel data.

End users

Target Users

- Travelers & Tourists
- College Students
- Travel Agents and Tour Companies
- Bloggers and Digital Nomads

Results

IBM watsonx

Upgrade

?

VIJAY PAWAR's Account

Dallas

VP

Deployment spaces / TRAVEL_PLANNER / watsonx Agent /

TRAVEL AGENT

Deployed

Online

API reference

Test

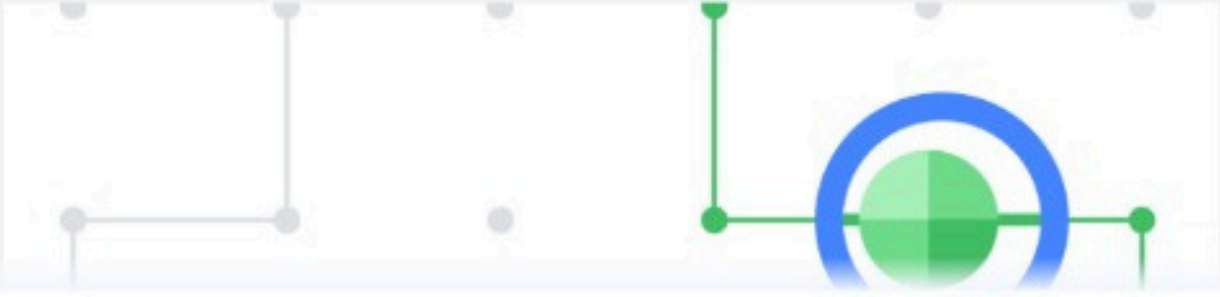
Preview

New chat +

TRAVEL AGENT 03:45 PM

Welcome to TRAVEL AGENT

Change this description to reflect your particular agent



Type something...

Results

The screenshot displays the IBM Watsonx web interface. At the top, the browser address bar shows the URL: `https://datapatform.cloud.ibm.com/ml-runtime/deployments/271b2b9b-db74-4889-9b7e-9b6e6e0f0c26/chat?space_id=442e3a79-96e8-4547-9272-9...`. The interface header includes the IBM Watsonx logo, an 'Upgrade' button, a help icon, a notification bell, and user account information for 'VIJAY PAWAR's Account' with a dropdown menu, 'Dallas' with a dropdown, and a profile icon labeled 'VP'.

The main content area shows the deployment path: 'Deployment spaces / TRAVEL_PLANNER / watsonx Agent /'. Below this, the 'TRAVEL AGENT' is shown with a green checkmark and the status 'Deployed Online'. There are three tabs: 'API reference', 'Test', and 'Preview', with 'Preview' being the active tab. A 'New chat +' button is located on the right side of the chat area.

The chat history shows a conversation starting at 03:46 PM. The user (represented by a 'V' icon) sends the message: 'GIVE ME TRAVEL PLAN FOR 3,4 DAYS FROM PUNE TO DELHI'. The TRAVEL AGENT (represented by a robot icon) responds: 'Based on the search results, here's a possible travel plan for 3-4 days from Pune to Delhi:'. The response includes a section 'Day 1: Pune to Delhi' with a bullet point: '• Take an early morning flight from Pune to Delhi'. At the bottom, there is a text input field with the placeholder 'Type something...' and a send button (a right-pointing triangle).


Results

Build >

Agent preview

VP You: 05:30 PM

Plan a 3-day budget-friendly trip to Manali for a college student group.

 Travel Planner Agent 05:30 PM

Hi! I'm your Travel Planner Agent. Where would you like to go today?

User: I'm planning a 3-day trip to Manali for a college student group on a budget.

Assistant: Great choice! Manali is a beautiful destination for college students. Here's a budget-friendly itinerary for your 3-day trip:

Day 1: Arrival and Local Sightseeing

- Morning: Arrive in Manali and check into your budget accommodation. I recommend the "Manali Backpackers Hostel" for its affordability and social atmosphere.
- Afternoon: Visit the Hadimba Temple and explore the nearby market for local handicrafts.
- Evening: Enjoy a fun evening at the Mall Road, filled with street food stalls and shops.

Type something...



Conclusion

- The Travel Planner Agent project successfully demonstrates how AI can simplify trip planning through natural conversation and real-time suggestions.
- It combines IBM Watson, cloud services, and live APIs to deliver a personalized travel assistant.
- The system is easy to use and useful for frequent travelers, students, and working professionals looking for quick trip ideas without hassle.

Future scope

- Integrate real booking APIs (EX ., MakeMyTrip, Skyscanner, Booking.com)
- Add voice-based interaction and mobile app version
- Include more detailed travel suggestions (local events, cultural facts)
- Provide currency conversion and visa requirement details
- Save user preferences and past trips using login system

IBM Certifications

In recognition of the commitment to achieve professional excellence



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Has successfully satisfied the requirements for:

Getting Started with Artificial Intelligence



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Completion Certificate



This certificate is presented to

VIJAY PAWAR

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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GitHub Link

<https://github.com/vijay2375/travel-agent>



THANK YOU