
IBM PROJECT

TRAVEL AI AGENT

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OUTLINE

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PROBLEM STATEMENT

Travel planning can be complex and time-consuming due to numerous options, constraints, and real-time factors.

The challenge is to develop an AI-powered Travel Planner Agent that helps users plan trips intelligently by:

- Understanding user preferences and constraints
- Recommending destinations and activities
- Managing bookings and updates

Manual planning often lacks personalization, is inefficient, and fails to adapt to real-time changes.

Proposed Solution:

An AI Travel Planner Agent that leverages real-time data, Natural Language Processing (NLP), and intelligent recommendation algorithms to assist users in planning personalized trips. It helps users by suggesting destinations, creating tailored itineraries, recommending transport and accommodations, integrating weather and map services, managing bookings, and dynamically adapting travel plans based on preferences and real-time updates.

TECHNOLOGY USED

IBM cloud lite services

Natural Language Processing (NLP)

IBM Granite model

IBM CLOUD SERVICES USED

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

WOW FACTORS

This agent will transform the way users plan their trips by providing real-time, AI-powered travel guidance. It reduces planning time, adapts to user preferences, and ensures a stress-free travel experience by integrating essential services and data into a single smart assistant.

Unique features:

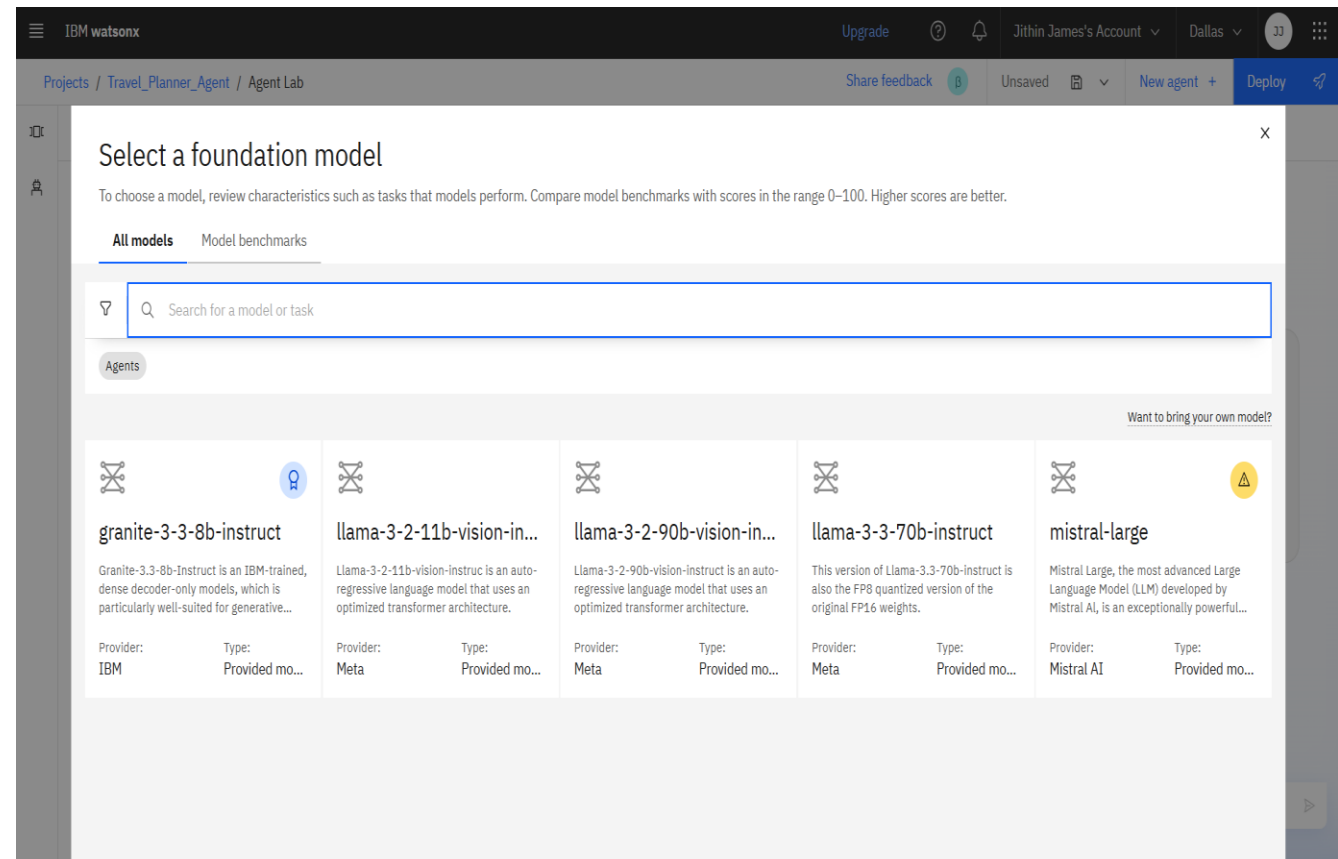
- Destination suggestions based on interests, budget, and time
- Dynamic itinerary generation with optimized scheduling
- Integration with live weather, maps, and local guides
- Personalized transport and accommodation recommendations
- Real-time alerts for delays, cancellations, and traffic conditions
- Intelligent re-routing and plan adjustments on the go
- Centralized booking management and travel support
- Voice/chat-based interface for seamless interaction

END USERS

- Tourists
- Travel Agencies and Agents
- Academic Researchers
- Business Travelers

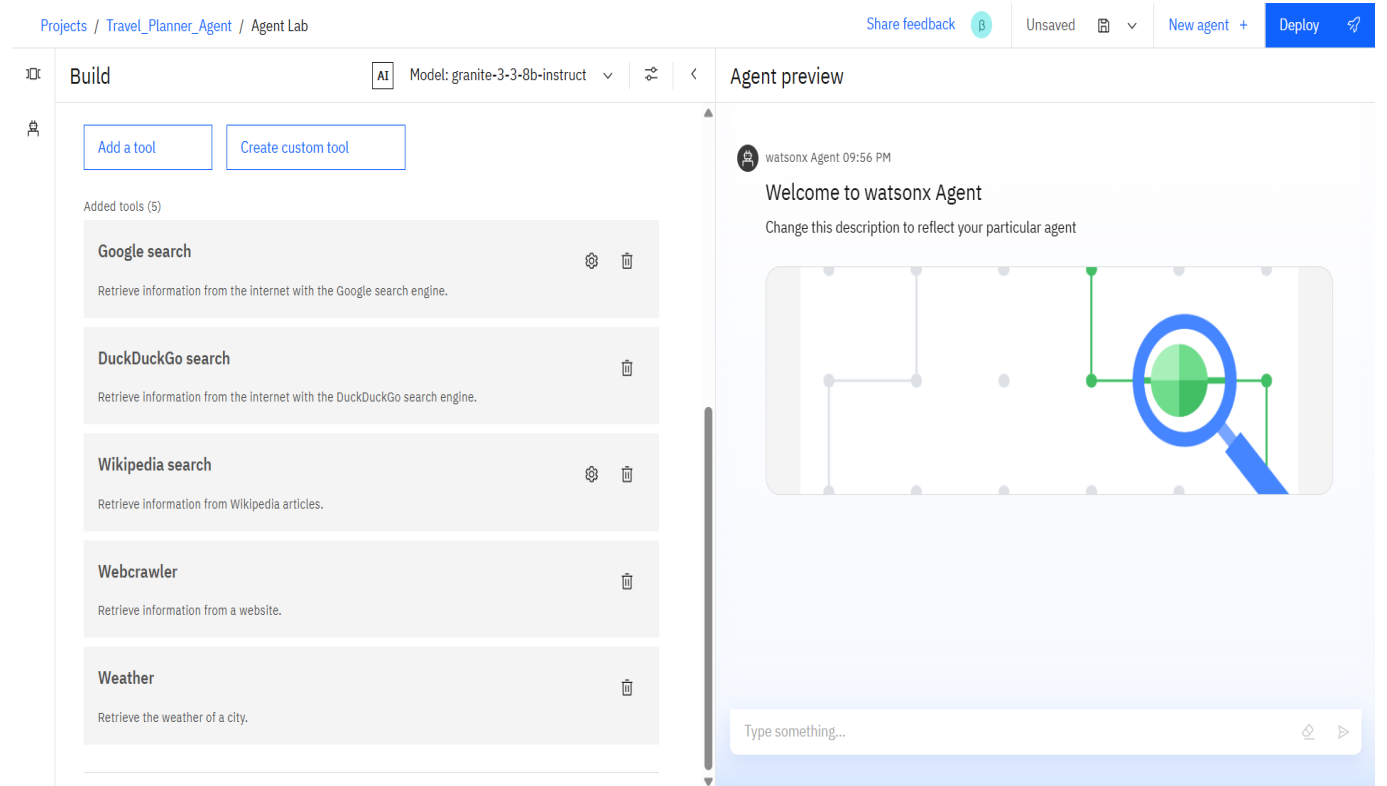
RESULTS

This screen in IBM watsonx.ai allows users to select and compare foundation models (like Granite, LLaMA, or Mistral) for building AI agents based on their specific task requirements.



RESULTS

This screen in IBM watsonx Agent Lab shows the tool configuration panel where users can add or customize tools like Google Search, Wikipedia, Webcrawler, and Weather to enhance the capabilities of their AI agent.



RESULTS

This screen from IBM watsonx Agent Lab demonstrates an AI Travel Planner Agent powered by the Granite model using LangGraph and ReAct, which intelligently responds to user travel queries by generating a personalized 2-day itinerary in Kerala based on the provided budget.

The screenshot displays the IBM watsonx Agent Lab interface. The top navigation bar includes the IBM watsonx logo, an 'Upgrade' button, a help icon, a notification bell, and user account information for 'Jithin James's Account' in 'Dallas'. Below the navigation bar, the breadcrumb trail shows 'Projects / Travel_Planner_Agent / Agent Lab'. The main interface is divided into two panels. The left panel, titled 'Build', shows the configuration for the agent. It includes a 'Framework' dropdown set to 'LangGraph' and an 'Architecture' dropdown set to 'ReAct'. The 'Instructions' section contains the following text: 'You are a smart AI Travel Planner Agent that helps users plan trips efficiently and intelligently. When greeted, say "Hi, I am your Travel Planner Agent . How can I assist you with your travel plans today?" You should: - Suggest travel destinations based on user preferences and budget. - Build detailed itineraries including places to visit and activities to do. - Recommend transportation and accommodation options using available tools. - Provide real-time weather and local updates for selected locations. - Help users manage bookings and notify them about any travel updates or changes. - Optimize the schedule dynamically if changes occur during the trip. - Present information in a friendly, helpful, and concise manner. Always prioritize personalization based on user input and guide users step-by-step for a smooth travel experience.' The 'Knowledge' section is currently empty. The right panel, titled 'Agent preview', shows a chat history. The first message from 'watsonx Agent 10:05 PM' says: 'Hi, I am your Travel Planner Agent. How can I assist you with your travel plans today?'. The second message from 'You: 10:07 PM' asks: 'Can you suggest a destination in Kerala for a 2-day trip? my budget is 5000'. The third message from 'watsonx Agent 10:07 PM' responds: 'Sure, with a budget of 5000 INR for a 2-day trip in Kerala, you can consider visiting Munnar. It's known for its sprawling tea plantations, picturesque hills, and diverse wildlife. Here's a basic itinerary: Day 1: - Morning: Visit the Tea Museum and Mattupetty Dam. - Afternoon: Explore the Eravikulam National Park and enjoy a ride in the toy train. - Evening: Stroll around the local market for shopping and try local cuisine. Day 2: - Morning: Visit the Rose Garden and visit the highest peak in Munnar, the Anamudi Peak. - Afternoon: Explore the Chembra Meenmutty Waterfalls. - Evening: Return back home.' At the bottom of the chat preview, there is a text input field with the placeholder 'Type something...' and a send button.

RESULTS

'Travel_Planner_Agent' being deployed and initializing within the IBM Watsonx platform.

IBM watsonx

Upgrade

?

🔔

Jithin James's Account

Dallas

JJ

⋮

Deployment spaces /

Travel_agent2

Overview

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Name	Type	Status	Asset	Asset type	Tags	Last modified
🔗 Travel_Planner_Agent	Online	🕒 Initializing	Travel_Planner_Agent	Ai service	wx-agent	4 seconds ago Jithin James (You)

Items per page: 20

1-1 of 1 items

1 of 1 pages

CONCLUSION

- The agent can generate personalized travel plans, recommend destinations, and suggest real-time itinerary adjustments.
- It saves time by automating tasks like booking, weather checks, and transport/accommodation planning.
- Travel Planner Agents enhance convenience, personalization, and flexibility, transforming the way users experience travel.

GITHUB LINK

- <https://github.com/jithin55/Travel-Planner-AI-Agent>

FUTURE SCOPE

- Integration with IoT (e.g., smart wearables, hotel systems)
- Advanced personalization using travel history and behavior
- Voice-enabled trip planning and real-time interaction
- AI-powered budget optimization and offer tracking
- Multilingual support for travel conversations and content

IBM CERTIFICATIONS

In recognition of the commitment to achieve
professional excellence



Jithin James

Has successfully satisfied the requirements for:

Getting Started with Artificial Intelligence



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7/23/25, 6:31 PM

Completion Certificate | SkillsBuild

IBM **SkillsBuild**

Completion Certificate



This certificate is presented to

Jithin James

for the completion of

**Lab: Retrieval Augmented Generation with
LangChain**

(ALM-COURSE_3824998)

According to the Adobe Learning Manager system of record

Completion date: 23 Jul 2025 (GMT)

Learning hours: 20 mins



THANK YOU