### **CAPSTONE PROJECT**

### TRAVEL PLANNER AGENT

**Presented By:** 

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#### **OUTLINE**

- Problem Statement
- Proposed System/Solution
- System Development Approach
- Algorithm & Deployment
- Result (Output Image)
- Conclusion
- Future Scope
- References



## PROBLEM STATEMENT

Planning a trip involves multiple complex decisions such as selecting destinations, booking accommodations, organizing travel, and checking weather conditions. This process can be time-consuming and overwhelming for travelers.

Many users face difficulty aligning their travel plans with their budget, preferences, and available time. Moreover, traditional tools lack the ability to offer real-time, personalized assistance based on changing factors like weather, availability, or cost.



## PROPOSED SOLUTION

- This project proposes an AI-based Travel Planner Agent built using IBM Cloud services and Watsonx Granite LLM.
- The system accepts natural language queries from users and generates personalized destination suggestions, optimized itineraries, travel tips, and recommendations using IBM Granite models.
- All logic is handled using Watsonx.ai's prompt interface and runtime services.



## SYSTEM APPROACH

- IBM Cloud Lite account used
- Services: Watsonx.ai, Watsonx Runtime, Deployment Space
- Prompt-based agent design using Ilama-3-3-70b-instruct model
- Deployment through Watsonx Agentic Lab with live testing interface



# **ALGORITHM & DEPLOYMENT**

#### Algorithm Selection:

Used IBM **Ilama-3-3-70b-instruct** (LLM) for natural language understanding and response generation. Chosen for its ability to handle travel queries without manual training.

#### Data Input:

"Suggest a 3-days travel itinerary for Jaipur under Rs 15,000 for solo traveler in october."

#### Training Process:

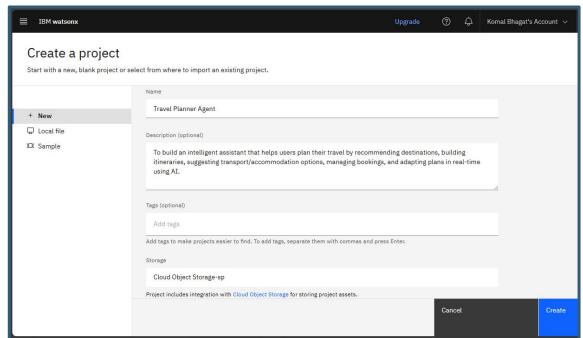
No training required. Pre-trained model used. Prompt tuning was done to improve output quality.

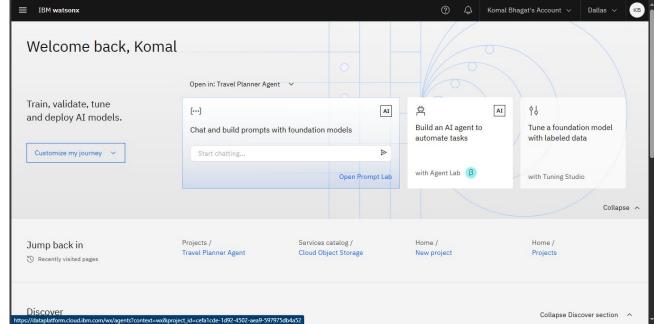
#### Prediction Process:

The model generates real-time itineraries, travel suggestions, and packing tips based on user input.

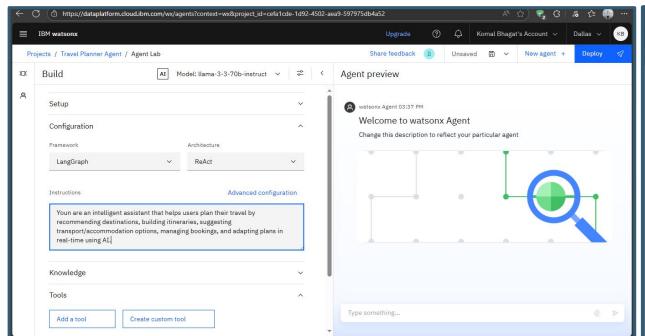
Deployed using Watsonx.ai and IBM Cloud Runtime.

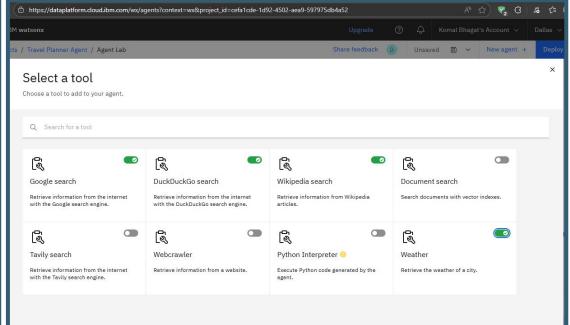














# RESULT

#### **Prompt:**

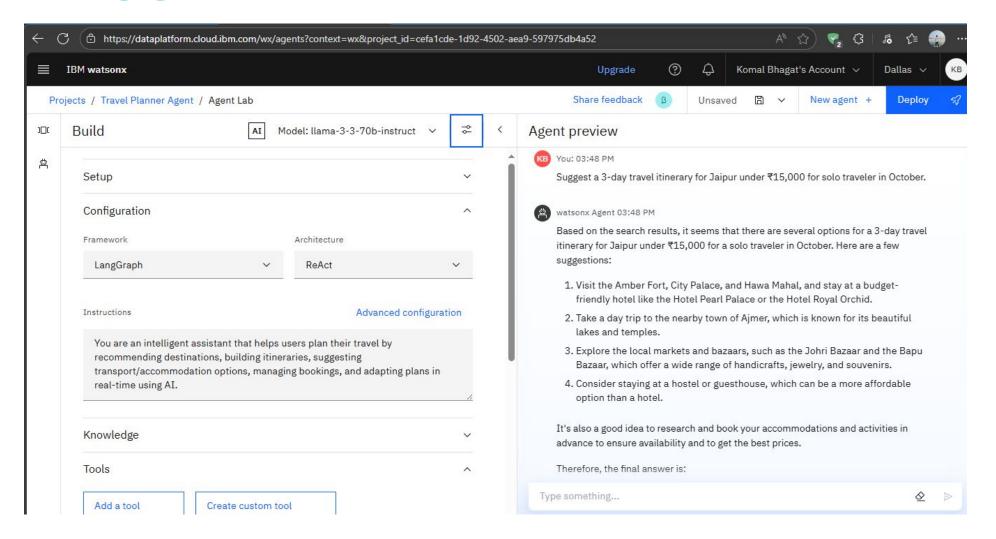
Suggest a 3-day travel itinerary for Jaipur under ₹15,000 for a solo traveler in October.

#### **Output:**

- 1. Visit Amber Fort, City Palace, and Hawa Mahal. Stay at budget hotels like Hotel Pearl Palace or Hotel Royal Orchid.
- 2. Take a day trip to Ajmer to explore lakes and temples.
- 3. Explore Johri Bazaar and Bapu Bazaar for handicrafts, jewelry, and local souvenirs.
- 4. Consider staying in hostels or guesthouses for cost-effective accommodation.



## RESULT





# CONCLUSION

- The Travel Planner Agent simplifies the trip planning process by using IBM Watsonx foundation models.
- It provides smart, real-time, personalized travel advice, thus saving time and effort for users.
- The project demonstrates effective use of IBM Cloud's AI services for solving a real-world problem with minimal infrastructure.



### **FUTURE SCOPE**

- Integration with live booking platforms (flights, hotels)
- Multilingual capabilities for regional users
- Downloadable itineraries or offline travel guides



### **Github Repository Link**

komalbhagat123/Travel-Planner-Agent-IBM-



### IBM CERTIFICATIONS

In recognition of the commitment to achieve professional excellence



# Komal Bhagat

Has successfully satisfied the requirements for:

Getting Started with Artificial Intelligence



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### IBM CERTIFICATIONS

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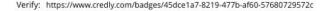
# Komal Bhagat

Has successfully satisfied the requirements for:

Journey to Cloud: Envisioning Your Solution



Issued on: Jul 21, 2025 Issued by: IBM SkillsBuild







#### IBM CERTIFICATIONS

IBM **SkillsBuild** Completion Certificate



This certificate is presented to

Komal Bhagat

for the completion of

### Lab: Retrieval Augmented Generation with LangChain

(ALM-COURSE\_3824998)

According to the Adobe Learning Manager system of record

Completion date: 25 Jul 2025 (GMT)

Learning hours: 20 mins



### **THANK YOU**

