#### IBM HACKATHON PROJECT

#### TRAVEL PLANNER AGENT

**Presented By** 

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#### **OUTLINE**

- Problem Statement
- Proposed system/Solution
- Technology Used
- Algorithm & Deployment
- Result
- Conclusion
- Future scope
- IBM Certifications



## PROBLEM STATEMENT

- In today's fast-paced world, planning a trip involves managing multiple elements — selecting destinations, finding the best travel routes, booking accommodations, estimating budgets, and organizing daily itineraries. Most travelers rely on scattered sources like travel websites, weather apps, and booking platforms, making the planning process timeconsuming and inefficient.
- There is a pressing need for an intelligent, integrated solution that can streamline and personalize the travel planning experience. The current lack of such a unified platform often leads to disorganized plans, budget overruns, missed opportunities, and reduced overall satisfaction for travelers.

## PROPOSED SOLUTION

To address the complexities and inefficiencies in modern travel planning, we propose developing an **Al-powered Travel Planner Agent** — an intelligent, user-centric application that automates and personalizes the entire trip planning process.

#### **Goals of the System:**

User Input & Preference Analysis
Smart Destination & Itinerary Recommendation
Real-time Data Integration
Budget Optimization & Planning
Personalized Dashboard
Additional Features (Optional/Future Scope)



## **TECHNOLOGY USED**

- IBM cloud lite services
- Natural Language Processing (NLP)
- Retrieval Augmented Generation (RAG)
- IBM Granite model



#### **IBM CLOUD SERVICES USED**

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



#### **ALGORITHM & DEPLOYMENT**

The Eco Lifestyle Agent uses **RAG** (Retrieval-Augmented Generation) with **IBM** Granite to provide personalized, real-time eco-guidance.

#### Algorithm Used:

 The system uses Retrieval-Augmented Generation (RAG) with IBM Granite to provide real-time, personalized eco-guidance by retrieving relevant content and generating natural responses

#### Data Input:

- User queries in natural language
- Curated eco-content: tips, recycling info, government schemes

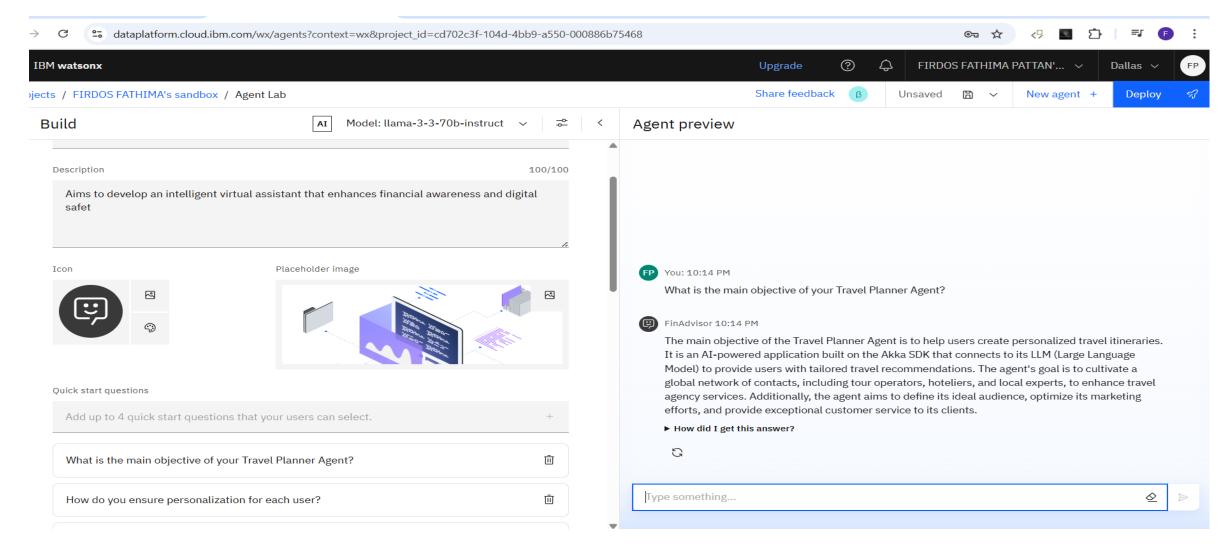
#### Process Flow:

- Embed user query
- Retrieve top-matching eco documents
- Generate context-aware response using IBM Granite
- Display suggestion with optional sources

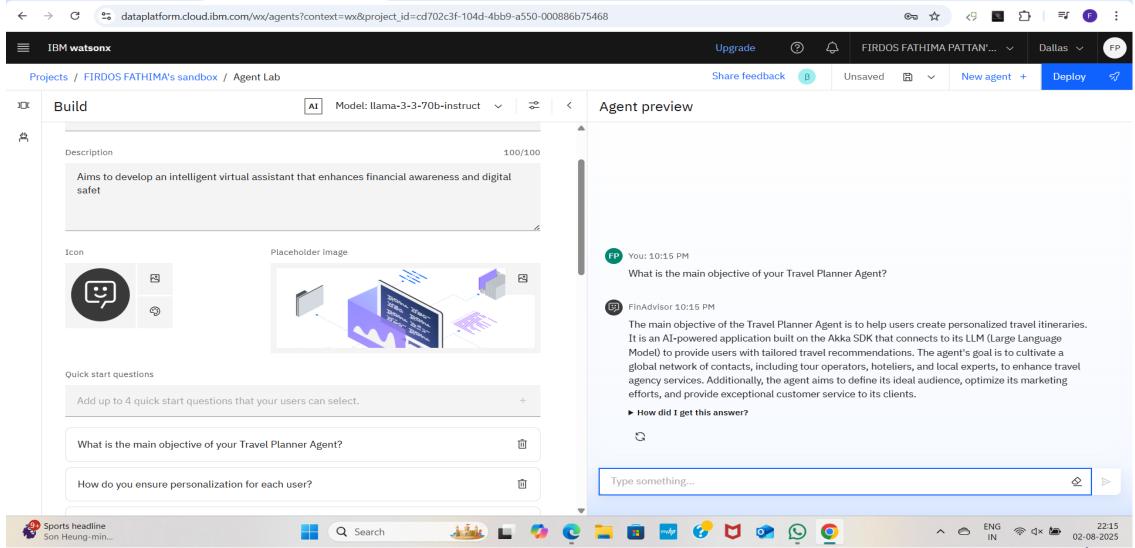
#### Deployment Tools:

- IBM Watsonx Al Studio
- IBM Watsonx Al Runtime
- IBM Cloud Agent LabIBM Granite Foundation Model

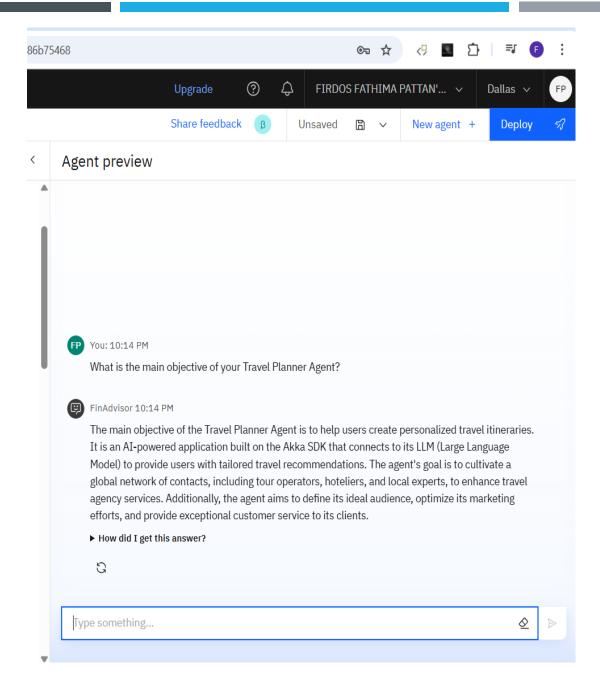






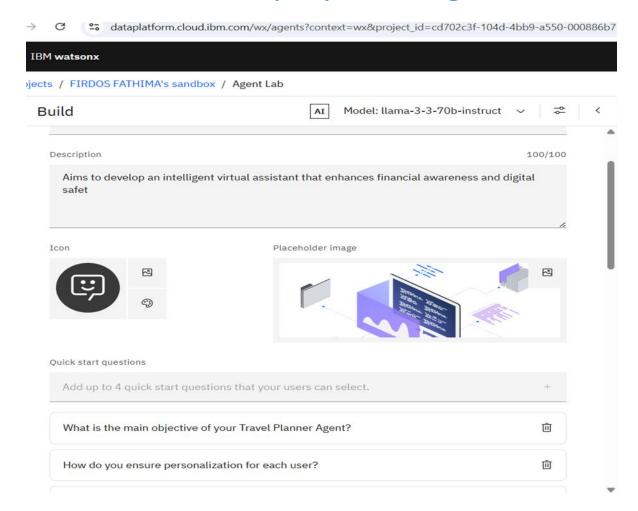








#### Deployed AI Agent





#### CONCLUSION

#.The Travel Planner Agent presents an innovative and efficient solution to the challenges faced by modern travelers. By integrating artificial intelligence with real-time data sources such as weather updates, map services, and booking platforms, this system simplifies the entire trip planning process—from destination discovery to itinerary generation and budget optimization.

#.Through personalized recommendations based on user preferences and constraints, the agent enhances travel experiences by reducing manual effort, saving time, and minimizing planning errors. It serves as a smart, all-in-one assistant that adapts to individual needs, making travel more organized, enjoyable, and stress-free.



## **FUTURE SCOPE**

- Integration with Booking Platforms
- Al-Powered Chat Assistant
- Voice Assistant Compatibility
- Emergency Assistance & Safety Features
- Local Experience Integration
- Multi-Device Syncing



## **IBM CERTIFICATIONS**

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#### **Completion Certificate**



This certificate is presented to

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for the completion of

#### Lab: Retrieval Augmented Generation with LangChain

(ALM-COURSE\_3824998)

According to the Adobe Learning Manager system of record

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# THANK YOU

