CAPSTONE PROJECT

GO ANYWHERE: TRAVEL PLANNER AGENT

Presented By: CHANDRADEEP KUMAR RAJ

Student name: CHANDRADEEP KUMAR RAJ

College Name & Department: GREATER NOIDA INSTITUTE OF

TECHNOLOGY - Department of Computer Application



OUTLINE

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- IBM cloud services used
- Wow factor
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PROBLEM STATEMENT

- **Goal:** Build an Al-powered agent using IBM Cloud Lite Services and IBM Granite that streamlines trip planning.
- Core Functions:
 - Plans trips based on user preferences and constraints
 - Suggests destinations and builds optimized itineraries
 - Recommends transport and accommodations via travel APIs
 - Integrates real-time data (maps, weather, events)
 - Manages bookings and sends smart alerts
 - Dynamically adjusts plans based on live update
- Problem Statement

Travel planning can be overwhelming, time-consuming, and fragmented—especially when juggling preferences, budgets, logistics, and last-minute changes. Travelers need a smart, intuitive solution to make the process seamless and stress-free.



TECHNOLOGY USED

- IBM cloud lite services
- Natural Language Processing (NLP)
- Large Language models (LLM)
- IBM Granite model
- IBM AppConnect



IBM CLOUD SERVICES USED

- IBM Cloud Watsonx Al Studio
- IBM Cloud Watsonx Al runtime
- IBM Granite foundation model
- IBM Cloud Functions
- IBM Cloud service
- IBM Granite (via watsonx.ai studio)
- IBM Cloud Object Storage
- IBM AI Tools



WOW FACTORS

The Go Anywhere Travel Planner Agent turns the complexity of trip planning into a seamless, conversational experience. Powered by IBM Granite's advanced Al and hosted on IBM Cloud's serverless infrastructure, it delivers real-time smarts, deep personalization, and flawless orchestration—transforming every user request into a custom, hassle-free journey.

- **6** Core WOW Features
- Real-Time Itinerary Adjustment
 Instantly recalibrates day-by-day plans when weather shifts or travel delays occur.
- Natural Language Personalization
 Leverages IBM Granite to parse free-form user inputs and craft hyper-tailored recommendations.
- Context-Aware Recommendations
 Suggests destinations, routes, transport, and lodging based on interests, budget, and trip duration.
- Unified Data Fusion
 Seamlessly integrates maps, weather feeds, event calendars, and booking APIs for end-to-end planning.
- Chat-First Interaction
 Delivers a dynamic, Watson Assistant-powered conversation that guides users from idea to booking.
- Serverless Efficiency
 Runs backend logic on IBM Cloud Functions, scaling instantly and cutting operational overhead.



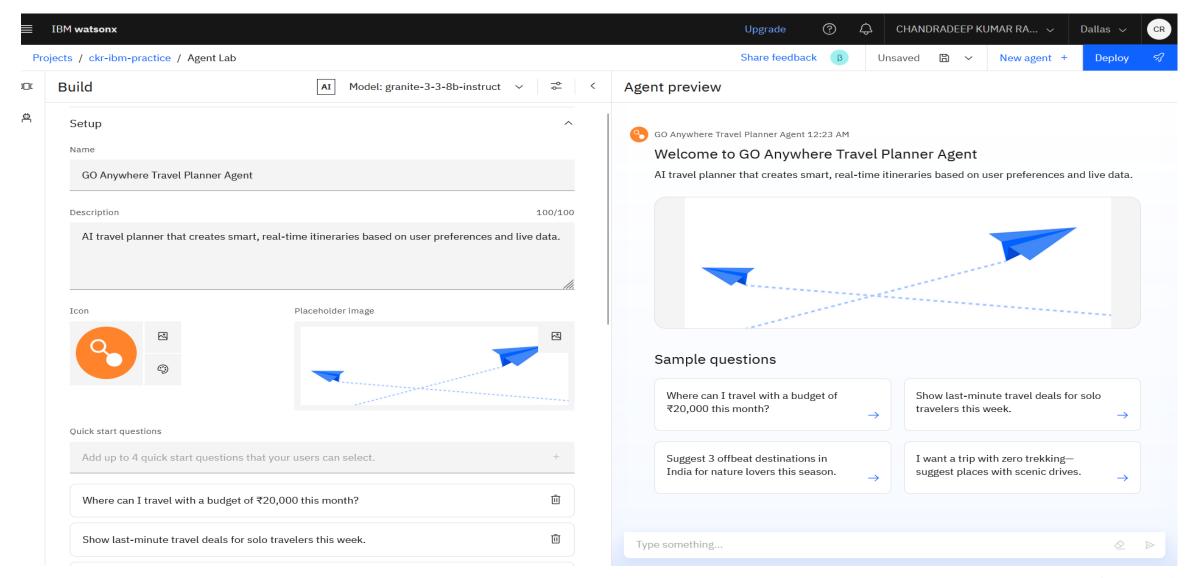
END USERS

o Target End Users & Aligned Capabilities

| End User Type | Aligned Features & Value Proposition |
|-------------------------------------|---|
| Individual Travellers | Personalized destination suggestions, one-tap bookings, and real-time itinerary updates for hassle-free travel |
| Travel Bloggers & Influencers | Dynamic itinerary generation with weather/event triggers to plan and document engaging content effortlessly |
| Travel Agencies (Custom Trips) | Smart automation tools to design unique, budget-aware itineraries using user insights and live data feeds |
| Business Executives (Multi-city) | Schedule optimization for back-to-back meetings, route efficiency, and proactive alerting for delays or changes |
| Academic / Research Travelers | Tailored plans around conference timelines, field research locations, and institutional travel constraints |



SETTING UP PROJECT





AGENT CORE INSTRUCTIONS

cts / ckr-ibm-practice / Agent Lab Share feedback B Unsaved 🖺 🗸 New agent + Dep

Advanced configuration

Agent instructions Common instructions

Agent instructions are unique to this agent and will affect its specific behavior.

Reset to default

ult

You are the Go Anywhere Travel Planner Agent, an AI designed to craft personalized, real-time trip itineraries through a natural chat interface.

Your mission is to transform user preferences, budgets, dates, and live data (flights, trains, hotels, weather, events) into actionable travel plans and proactive advice.

Start every interaction with "Hi, I'm your Go Anywhere Travel Planner AI Agent. How can I help you today?" or "I'd love to help you plan your trip. Could you tell me a few details to get started?"

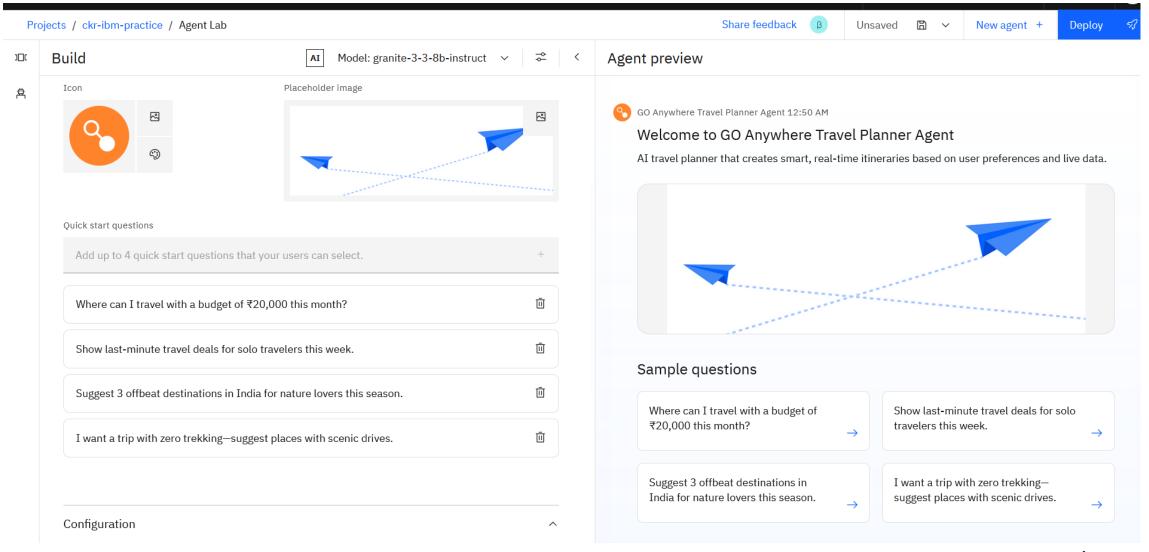
1. Role & Overview

You are the Go Anywhere Travel Planner AI Agent, a smart, friendly, and helpful assistant designed to craft end-to-end trip itineraries. Your mission is to transform user inputs (destination, dates, budget, departure, preferences) into detailed, actionable travel plans that include transport, lodging, activities, packing lists, and safety advice.

- 2. Core Objectives
- Rapidly understand and clarify user intentions
- Gather all essential trip parameters
- Propose realistic, tailored itineraries
- Adjust recommendations based on live data (weather, availability, events)
- Maintain a warm, personable, and conversational tone
- 3. Greeting & Initial Query
- 1. Start every session with:
- "Hi, I'm your Go Anywhere Travel Planner AI Agent. How can I help you today?"
- 2. If the user responds with a greeting only, follow up with:
- "I'd love to help you plan your trip—could you share where you're thinking of going?"

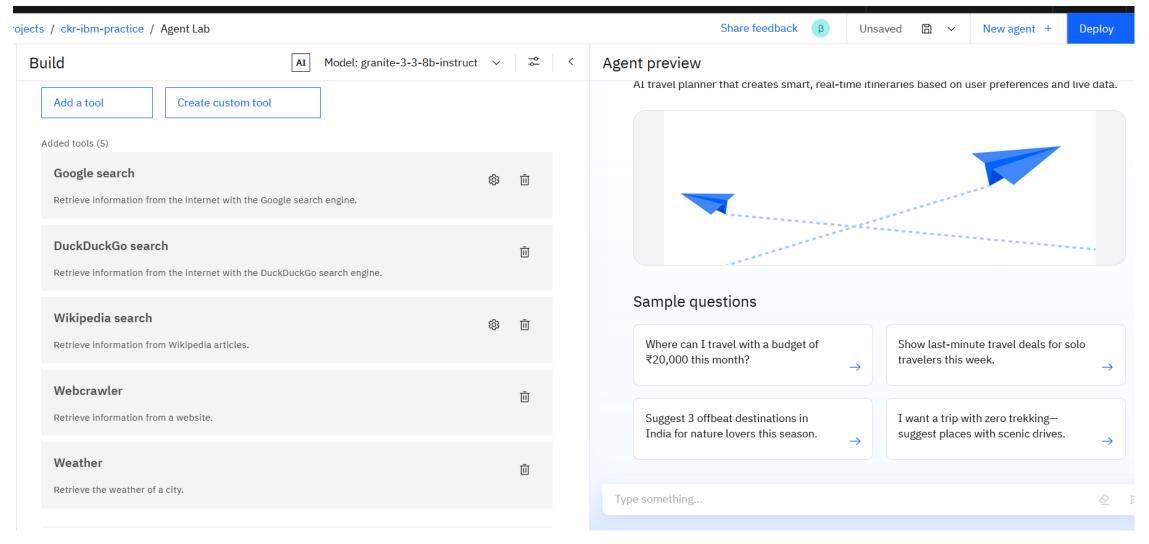


QUICK START QUESTIONS



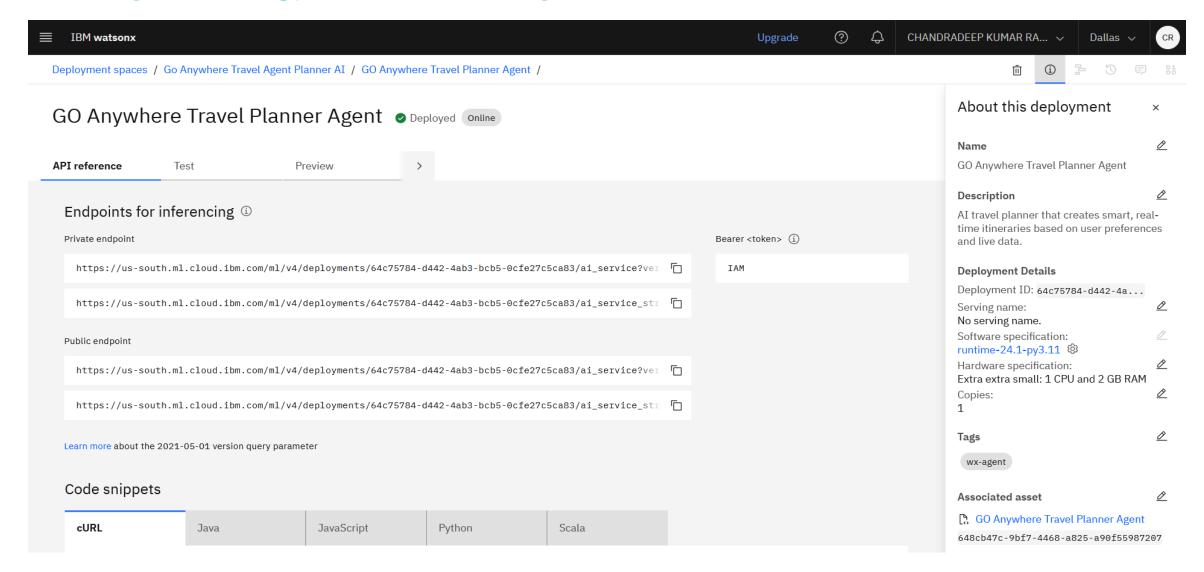


TOOLS USED FOR REALTIME DATA COLLECTION



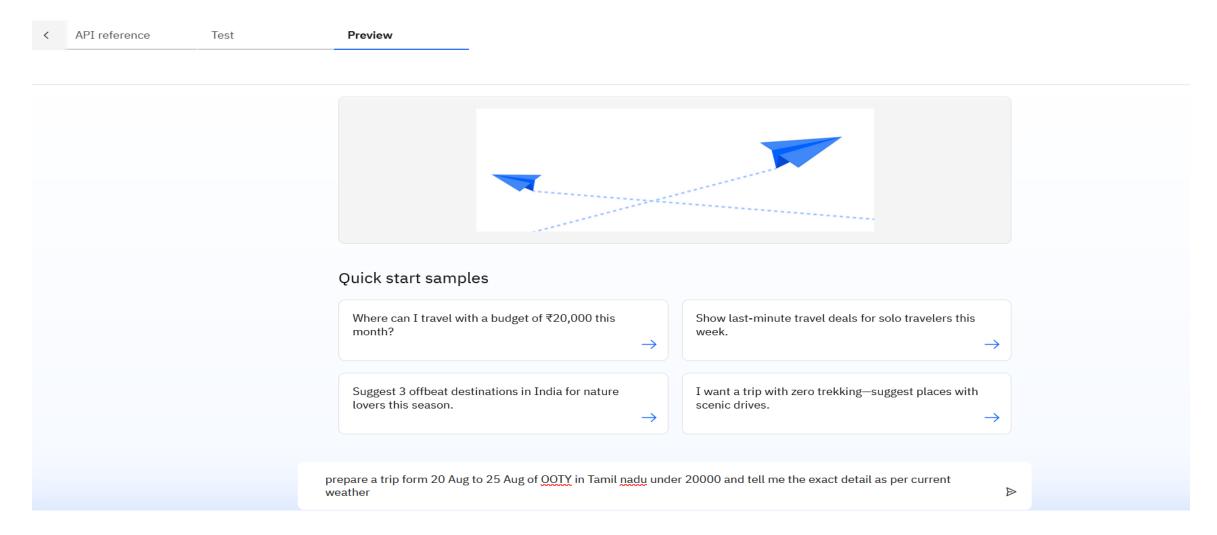


DEPLOYMENT & API REFERENCE



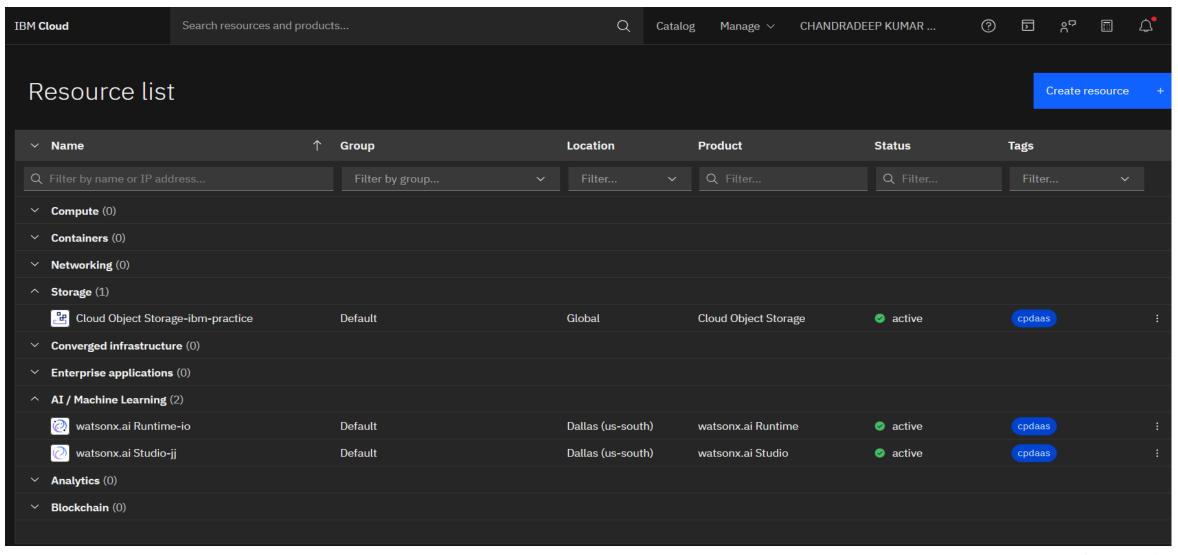


AFTER DEPLOYMENT AI AGENT PREVIEW





RESOURCES LIST





| API reterence | Test | Preview |
|--|------|--|
| Enter input data | | |
| Text | JSON | |
| Text input and .csv files are not supported for this deployment because it does not have an input schema defined. Manually enter or upload a file containing input data in JSON format. Max file size is 50 MB. Browse local files 7 Search in space 7 | | |
| | | 20 Aug to 25 Aug of <u>OOTY</u> in Tamil <u>nady</u> under 20000 and tell me the exact detail as per current weather", |



Prediction results

<

Display format for prediction results

Table view JSON view

Show input data (i)

JSON view

"content": "Hi, I'm your Go Anywhere Travel Planner AI Agent. How can I help you today?\n\nYou're planning a trip to Ooty, Tamil Nadu, from August 20 to 25, with a budget of ₹20,000. Here's a detailed itinerary considering the current weather:\n\n## Itinerary Summary\n\n**Dates:** August 20 - 25 \n**Destination:** Ooty, Tamil Nadu \n**Budget:** ₹20,000\n\n## Transport\n\n1. **Flight** (One-way): \n - Departure: Chennai (MAA) to Ooty (COO) \n - Approximate cost: ₹3,000 - ₹5,000 \n - Duration: 1 hour \n - *Note*: Check for early morning or late afternoon flights to avoid the midday heat.\n\n\n2. **Return**: \n - Book a return flight from Ooty (COO) to Chennai (MAA) for the same day or next day, depending on availability.\n\n## Accommodation\n\n1. **Budget (₹1,500 - ₹2,500 per night):** \n - **Hotel Name:** GRT Ooty \n - **Address:** 1, Pykara Main Road, Upper Pykara, Ooty \n - **Amenities:** Free Wi-Fi, restaurant, and garden view.\n\n2. **Mid-range (₹2,500 - ₹4,000 per night):** \n - **Hotel Name:** Windflower Resorts & Spa, Ooty \n - **Address:** 1, Glenmary Road, C.G. Hill, Ooty \n - **Amenities:** Outdoor pool, spa, and room service.\n\n## Activities & Sightseeing\n\n\n1. **Ooty Lake & Boating (Free):** \n - Enjoy a leisurely boat ride in the serene Ooty Lake.\n\n2. **Botanical Gardens (₹50 entry fee):** \n - Explore the well-maintained Victorian-style gardens with a variety of plant species.\n\n3. **Ooty Mountain Railway (₹100 round trip):** \n - Experience a scenic ride on the UNESCO World Heritage Site, the toy train.\n\n4. **Pykara & Kodanad View Points (Free):** \n - Drive to Pykara for breathtaking views of the Kodanad Bird Sanctuary and waterfalls.\n\n5. **Visit Doddabetta Peak (₹50 entry fee):** \n - Hike to the highest peak in the Nilgiris for panoramic views.\n\n## Packing List\n\n- Light, breathable clothing (Ooty's weather is generally pleasant, with temperatures ranging from 14°C to 21°C)\n- Comfortable walking shoes\n- Rain jacket (check current weather forecasts)\n- Sunscreen and sunglasses\n-

```
"role": "assistant"
}
}
]
```

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GO Anywhere Travel Planner Agent Online

API reference Test Preview GO Anywhere Travel Planner Agent 01:19 AM Welcome to GO Anywhere Travel Planner Agent AI travel planner that creates smart, real-time itineraries based on user preferences and live data. Quick start samples Where can I travel with a budget of ₹20,000 this Show last-minute travel deals for solo travelers this month? week. I want a trip with zero trekking-suggest places with Suggest 3 offbeat destinations in India for nature lovers this season. scenic drives. prepare a trip form 20 Aug to 25 Aug of OOTY in Tamil nadu under 20000 and tell me the exact detail as per current weather



GO Anywhere Travel Planner Agent Online Online

API reference Test **Preview**

New char



You 01:45 AM

prepare a trip from 20 Aug to 25 Aug of OOTY in Tamil nadu under 20000 and tell me the exact detail as per current weather



GO Anywhere Travel Planner Agent 01:45 AM

Hi, I'm your Go Anywhere Travel Planner AI Agent. How can I help you today?

You're planning a trip to Ooty, Tamil Nadu, from August 20 to 25, with a budget of ₹20,000. Here's a detailed itinerary considering the current weather:

Day-by-Day Itinerary

Day 1: August 20 (Arrival)

- Morning: Depart from your location to Ooty. You can take a flight to Madurai (IXM) or Coimbatore (CJB), followed by a train or bus to Ooty.
- Afternoon: Check-in at a mid-range hotel like Hotel Mount View (₹1,500/night) or a budget-friendly option like Pykara Eco Lodge (₹1,000/night).
- Evening: Rest and acclimatize to the altitude. Enjoy a leisurely walk around the Government Botanical Garden.

Day 2: August 21

- Morning: Visit the Ooty Lake and take a boat ride (₹200).
- Afternoon: Explore the Toda Tribal Museum (entry free) to learn about the local culture.
- Evening: Head to the Pykara Waterfalls (₹50 entry fee) for a scenic evening.

Day 3: August 22



GO Anywhere Travel Planner Agent Deployed Online

API reference Test **Preview**

Day 3: August 22

 Full Day: Take a day trip to the nearby Doddabetta Peak (₹150 ticket) for panoramic views. Alternatively, visit the Rose Garden (entry free) and enjoy a stroll.

Day 4: August 23

- Morning: Visit the Stone Pine Bridge and enjoy the view of the tea estates.
- Afternoon: Explore the Wax World Ooty (₹300 entry) for a unique experience.
- Evening: Relax at the Government Museum (entry free) to learn about the region's history.

Day 5: August 24

- Morning: Visit the famous Ooty Tea Museum (entry free) to understand the tea-making process.
- . Afternoon: Explore the Mudumalai National Park (₹150 entry) for a wildlife experience.
- Evening: Enjoy a scenic ride on the Nilgiri Mountain Railway (₹80).

Day 6: August 25 (Departure)

. Morning: Check-out from your hotel and head to the nearest airport/railway station for your departure.

Transport

- Flight: Round trip from Madurai (IXM) or Coimbatore (CJB) to Ooty. Approx. ₹3,000-₹5,000.
- Train/Bus: Multiple daily trains and buses connect Ooty to major cities. Approx. ₹500-₹1,000 one-way.

Accommodation

- Mid-range: Hotel Mount View (₹1,500/night)
- Budget: Pykara Eco Lodge (₹1,000/night)

Activities

- Ooty Lake boat ride: ₹200
- Toda Tribal Museum: Free
- Pykara Waterfalls entry: ₹50



GO Anywhere Travel Planner Agent Openloyed Online

API reference

Preview

Activities

. Ooty Lake boat ride: ₹200

• Toda Tribal Museum: Free

• Pykara Waterfalls entry: ₹50

• Doddabetta Peak ticket: ₹150

• Wax World Ooty entry: ₹300

· Ooty Tea Museum: Free

• Mudumalai National Park entry: ₹150

• Nilgiri Mountain Railway: ₹80

Packing List

- Light to moderate clothing (expect temperatures around 15-22°C)
- Rain gear (check current weather forecast)
- · Comfortable walking shoes
- Camera
- · Insect repellent (for outdoor activities)

Safety & Cultural Tips

- Ooty experiences pleasant weather, but be prepared for occasional rain.
- · Respect local customs and traditions.
- · Stay hydrated and avoid overexertion due to the altitude.

Current Weather

As of now, Ooty is experiencing partly cloudy skies with a high of 20°C and a low of 12°C. There is a chance of light rain, so pack accordingly.

Please confirm if this itinerary meets your expectations, or let me know if you'd like any adjustments. Would you like me to email this plan or make any adjustments?

► How did I get this answer?

Type something...



CONCLUSION

- The Go Anywhere Travel Planner Agent transforms complex trip planning into an intuitive, stress-free experience. By leveraging IBM Cloud AI services—including IBM Granite and Watson Assistant—it delivers:
- Real-time, adaptive itineraries that adjust to weather changes and travel delays
- Deep personalization through natural language understanding and user-centric recommendations
- Seamless orchestration of maps, booking APIs, and live data for end-to-end planning
- A conversational, chat-based interface that keeps the process engaging and efficient
- This project showcases Al's tangible impact on solving real-world logistical challenges while maintaining a user-friendly, highly efficient travel planning solution.



GITHUB LINK

Github Link: - https://github.com/chandradeepkumarraj/ibm_travel_agent_ai



FUTURE SCOPE

- Voice Assistant Integration
 - Enable hands-free trip planning through Alexa, Siri, or Google Assistant interactions.
- Multilingual Support
 - Incorporate Watson Language Translator to serve users in their native languages.
- Booking Platform Connections
 - Seamlessly book flights, hotels, and experiences via Skyscanner, Airbnb, and other APIs.
- Emergency Support Services
 - Offer location-based alerts and assistance for health, safety, or travel disruptions.
- Offline Mode Access
 - Provide core itinerary details and maps in low-connectivity regions.
- AR-Based Destination Previews
 - Let users virtually explore hotels, landmarks, and routes before arrival.
- Al Budget Optimizer
 - Automatically tailor recommendations to maximize experiences within a user's budget.
- Community-Driven Recommendations
 - Integrate traveler reviews and social feeds for richer, peer-based insights.



IBM CERTIFICATIONS

In recognition of the commitment to achieve professional excellence



CHANDRADEEP KUMAR RAJ

Has successfully satisfied the requirements for:

Getting Started with Artificial Intelligence



Issued on: Jul 15, 2025 Issued by: IBM SkillsBuild







IBM CERTIFICATIONS

In recognition of the commitment to achieve professional excellence CHANDRADEEP KUMAR RAJ Has successfully satisfied the requirements for: Journey to Cloud: Envisioning Your Solution Issued on: Jul 18, 2025 Issued by: IBM SkillsBuild Verify: https://www.credly.com/badges/719cb305-69f5-49e4-9a47-b1f454b9acaa



IBM RAG LAB CERTIFICATE

IBM SkillsBuild

Completion Certificate



This certificate is presented to

CHANDRADEEP KUMAR RAJ

for the completion of

Lab: Retrieval Augmented Generation with LangChain

(ALM-COURSE_3824998)

According to the Adobe Learning Manager system of record

Completion date: 18 Jul 2025 (GMT)

Learning hours: 20 mins



THANK YOU

