
CAPSTONE PROJECT

TRAVEL PLANNER AGENT

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OUTLINE

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PROBLEM STATEMENT

A Travel Planner Agent is an AI-powered assistant designed to simplify and personalize the travel planning process. It leverages real-time data to suggest destinations, build itineraries, and recommend transport and accommodation options. It understands user preferences, budgets, and constraints to create personalized travel plans, and ensures a smooth travel experience through integrated maps, weather updates, and local guides.

Proposed Solution:

An AI Research Agent that uses Natural Language Processing (NLP), Retrieval-Augmented Generation (RAG), to assist users in conducting efficient literature reviews, generating summaries, identifying research gaps, and recommending relevant papers, datasets, or collaborators.

TECHNOLOGY USED

- IBM Cloud Lite Services: For hosting and deployment
- IBM Granite Foundation Models: For NLP, itinerary generation, and user interaction
- IBM Watson Assistant: For interactive user communication
- IBM Weather Company APIs: For real-time weather updates
- Google Maps API: For route planning and location integration

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 significantly reduce research time, improve the quality of literature reviews, help early-stage researchers find direction, and foster interdisciplinary collaboration by making knowledge more accessible and actionable.

Unique features:

- Semantic search across research papers, journals, and datasets
- Auto-summarization of selected papers
- Citation and reference analysis to trace influence
- Recommendation of research papers based on a user's current topic
- Trend analysis over time for specific keywords or domains.
- Collaboration mapping: suggests potential co-authors or institutions based on similar research interests.

END USERS

- Individual travelers and tourists
- Travel agencies
- Event planners and coordinators
- Corporate travel department

RESULTS

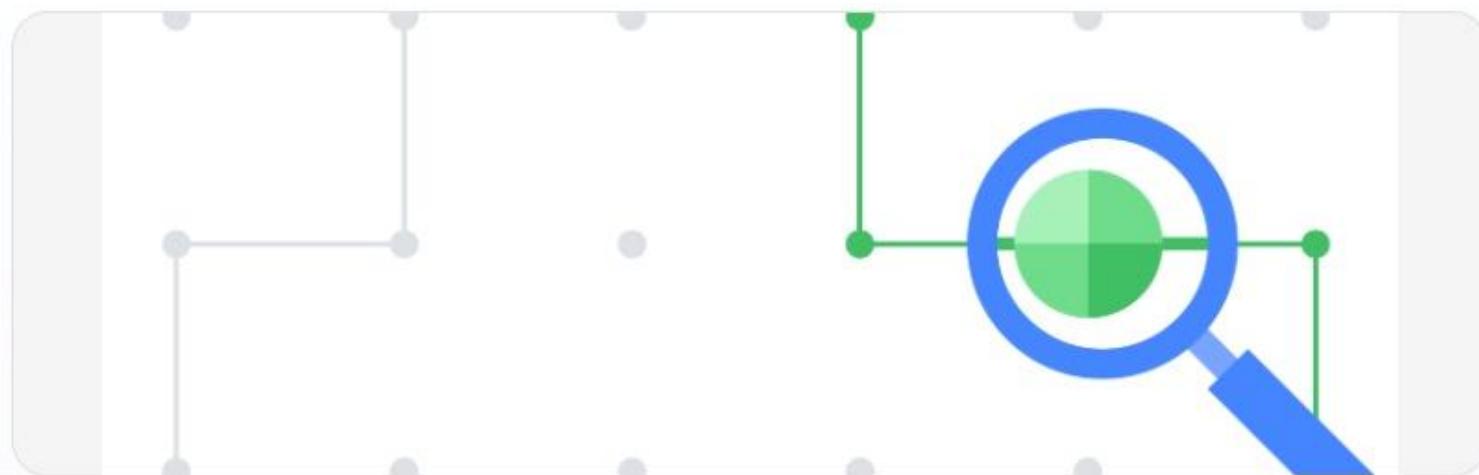
Agent preview



Travel Agent 11:42 AM

Welcome to Travel Agent

I'm your AI travel buddy- plan trips , books stays, suggest spots, all tailored just for you !



RESULTS

Agent preview

TS You: 11:31 AM

Give me 4 days travel plan from Goa to Chennai

Travel Agent 11:31 AM

I'm sorry for the confusion, but I need more specific details to provide a 4-day travel plan from Goa to Chennai. Could you please provide more information such as preferred mode of transportation, interests (sightseeing, adventure, food, etc.), and accommodation preferences?

For now, I can give you a general outline based on typical travel routes:

Day 1:

- Depart from Goa. You can take a flight or a bus from Goa to Chennai, which takes approximately 10-11 hours.
- Upon arrival in Chennai, check into your hotel and rest.
- Explore the local area around your hotel and have dinner at a nearby restaurant to try some local Chennai cuisine.

Day 2:

- Start your day with a visit to Kapaleeshwarar Temple, one of the famous Dravidian architecture temples in Chennai.

RESULTS

Agent preview



You: 11:37 AM

I have my mid sem exam after this trip how i will prepare for the exam ?



Travel Agent 11:37 AM

I understand you're planning to travel from Goa to Chennai and are also concerned about preparing for your mid-semester exams. Here's a suggested study plan you can follow during your trip:

1. **Prioritize your subjects:** Make a list of your upcoming exams and prioritize subjects based on their weightage and your comfort level.
2. **Travel time study:** Utilize your travel time effectively. If you're taking a flight, bring along textbooks or notes to review. If you're traveling by bus, you can listen to educational podcasts or watch pre-downloaded lectures on topics you find challenging.
3. **Early mornings or late nights:** Try to study early in the morning before your daily activities or during late evenings after a day of sightseeing. This way, you can ensure you get enough rest and don't compromise on your travel experience.
4. **Flashcards and summaries:** Use flashcards for quick revision of important concepts. Summarize complex topics into bullet points for easier memorization.
5. **Stay organized:** Keep your study materials and notes organized. This will save you time and help you focus on learning rather than searching for information.

RESULTS



You: 11:40 AM

Which season is best for trip?



Travel Agent 11:40 AM

The best time to visit Chennai for a 4-day trip would be from November to February, during the winter season. The weather during this period is pleasantly warm with minimum humidity, making it ideal for sightseeing and outdoor activities. The temperature usually ranges between 20°C to 32°C (68°F to 90°F).

The summer months, from March to June, can be quite hot with temperatures soaring above 40°C (104°F), making it less comfortable for exploring outdoors. The monsoon season from July to September brings heavy rainfall, which might disrupt travel plans. The post-monsoon period from October to November also experiences high humidity.

Please note that weather can be unpredictable, and it's always a good idea to check the forecast closer to your travel dates. If you need more specific weather data or travel advisories, I can perform a web search for you. Would you like me to do that?

► How did I get this answer?

CONCLUSION

- The agent can generate reports, suggest hypotheses, and even draft sections of research papers.
- It saves time by automating repetitive tasks like citation management and data extraction.
- Research Agents enhance efficiency, accuracy, and innovation in both academic and industrial R&D.

FUTURE SCOPE

- Multilingual Research Support
- Voice-Activated Research Assistant
- Real-Time Collaboration Features
- Research Gap and Novel Topic Identification
- Integration with Publishing Platforms
- AI-Assisted Paper Drafting
- Budget prediction and optimization using financial AI tools

IBM CERTIFICATIONS

In recognition of the commitment to achieve
professional excellence



Taniprava Sahoo

Has successfully satisfied the requirements for:

Getting Started with Artificial Intelligence



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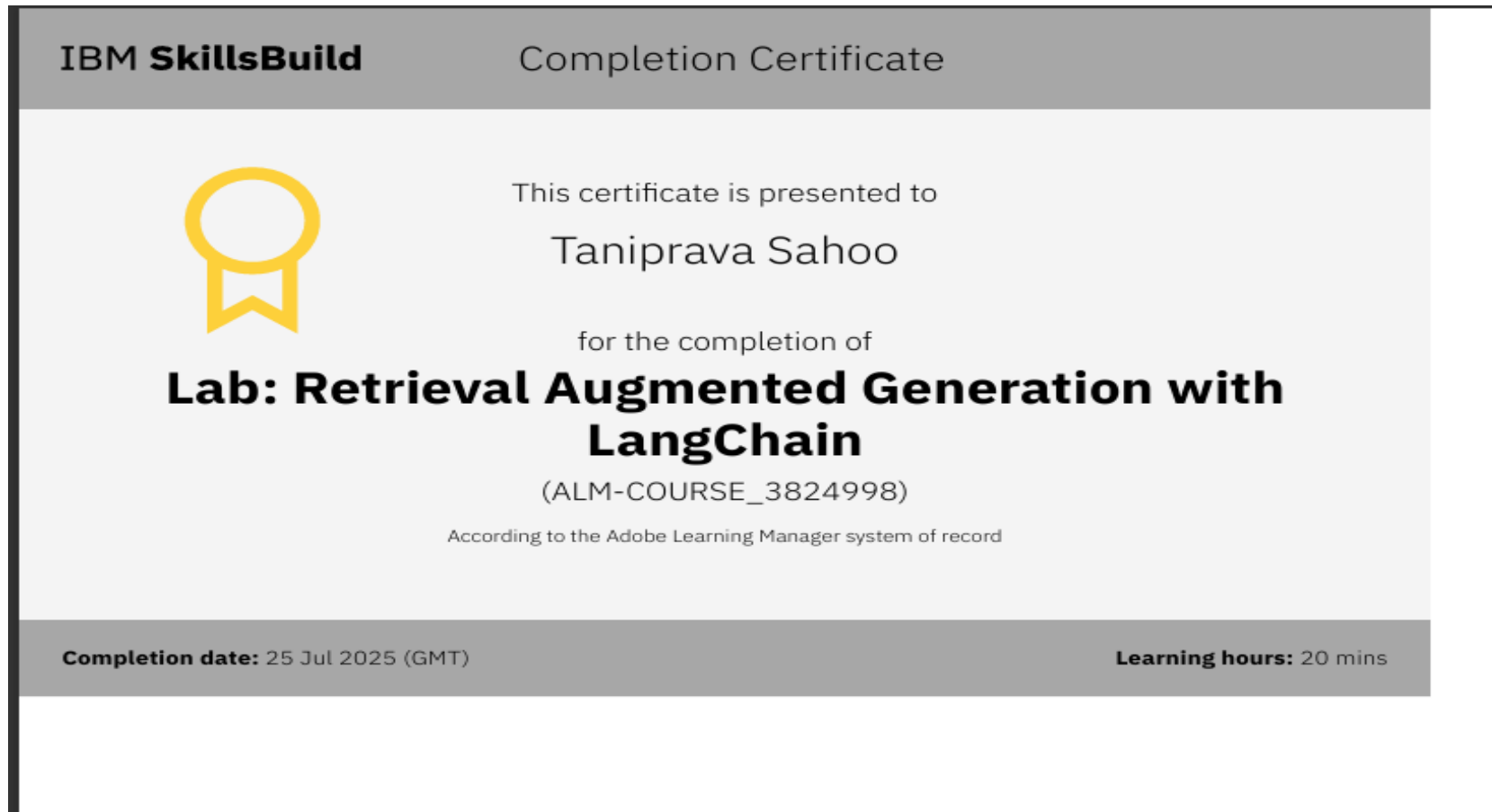


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GITHUB LINK

GITHUB LINK: https://github.com/TPS1234795/TRAVEL_AI_AGENTS



THANK YOU