CAPSTONE PROJECT

TRAVEL AGENT

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OUTLINE

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PROBLEM STATEMENT

Travelers often struggle with planning trips due to scattered information, budget limits, and time constraints. Manually searching for destinations, transport, accommodations, and weather updates can be confusing and inefficient.

Proposed Solution:

An AI-powered Travel Planner Agent using Natural Language Processing (NLP) and Retrieval-Augmented Generation (RAG) to understand user preferences, retrieve real-time travel data, and generate personalized, day-wise itineraries. It simplifies decision-making by suggesting routes, stays, and activities, ensuring a smooth and efficient travel experience.

TECHNOLOGY USED

IBM cloud lite services

Natural Language Processing (NLP)

Retrieval Augmented Generation (RAG)

IBM Granite model

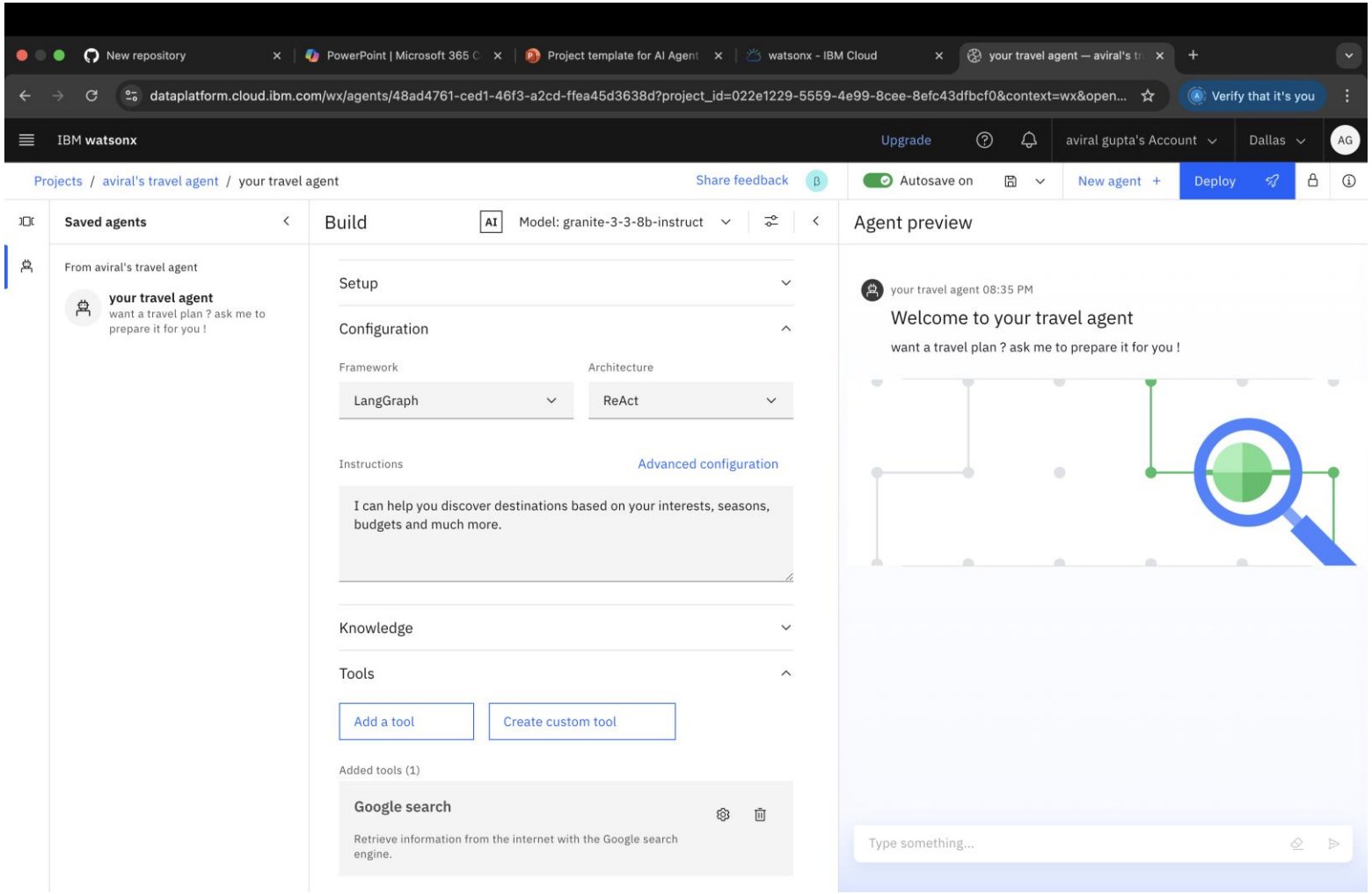
IBM CLOUD SERVICES USED

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

END USERS

- **Solo Travelers** – Planning personalized, budget-friendly trips with minimal effort.
- **Families** – Organizing safe, kid-friendly itineraries with accommodation and activity suggestions.
- **Students** – Looking for affordable weekend or holiday travel plans.
- **Corporate Employees** – Planning quick, efficient business or leisure trips.
- **Travel Bloggers** – Exploring curated destinations and unique local experiences.

RESULTS :-- MAKING TRAVEL AGENT



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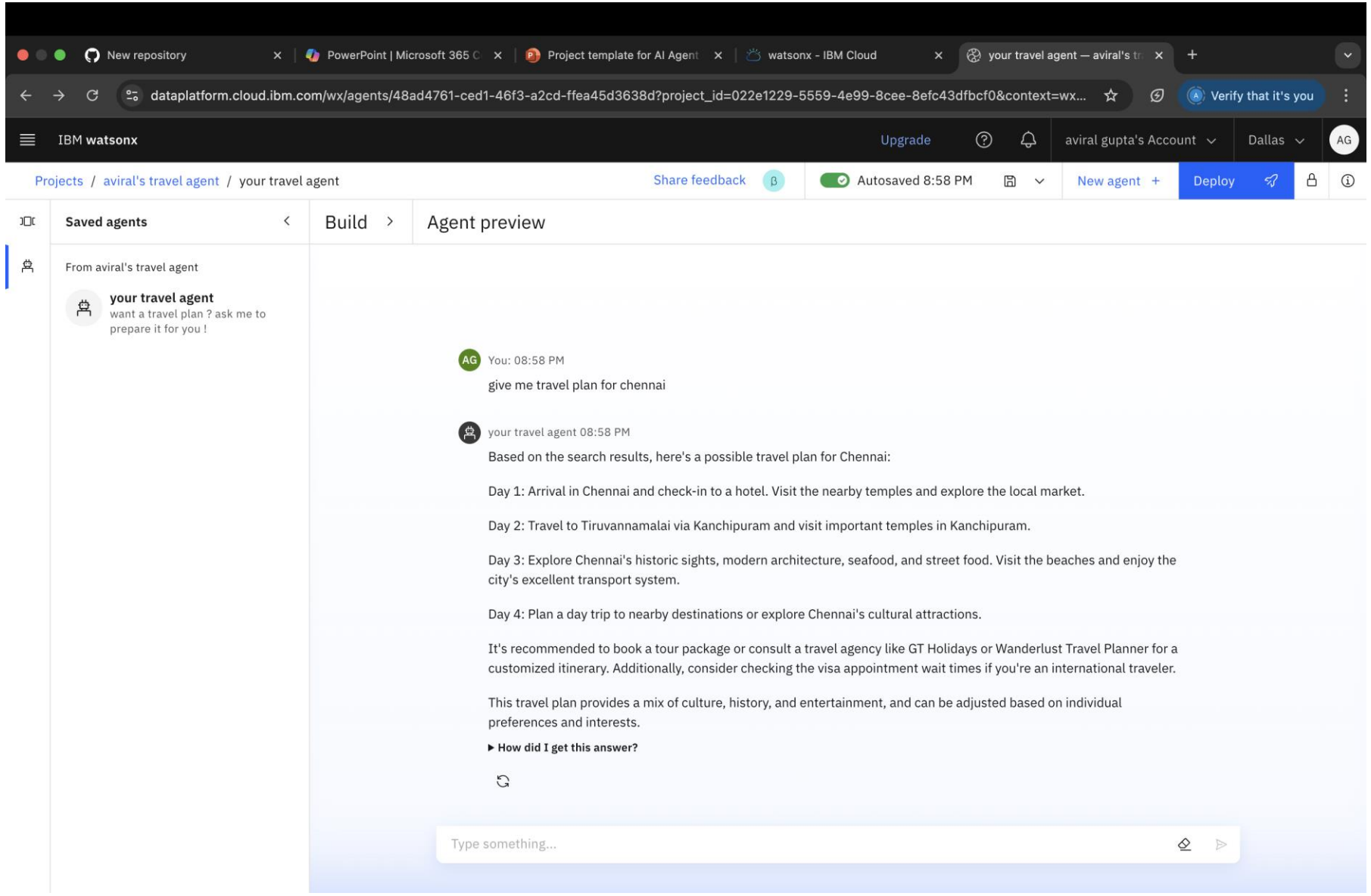
RESULTS:- AGENT PREVIEW



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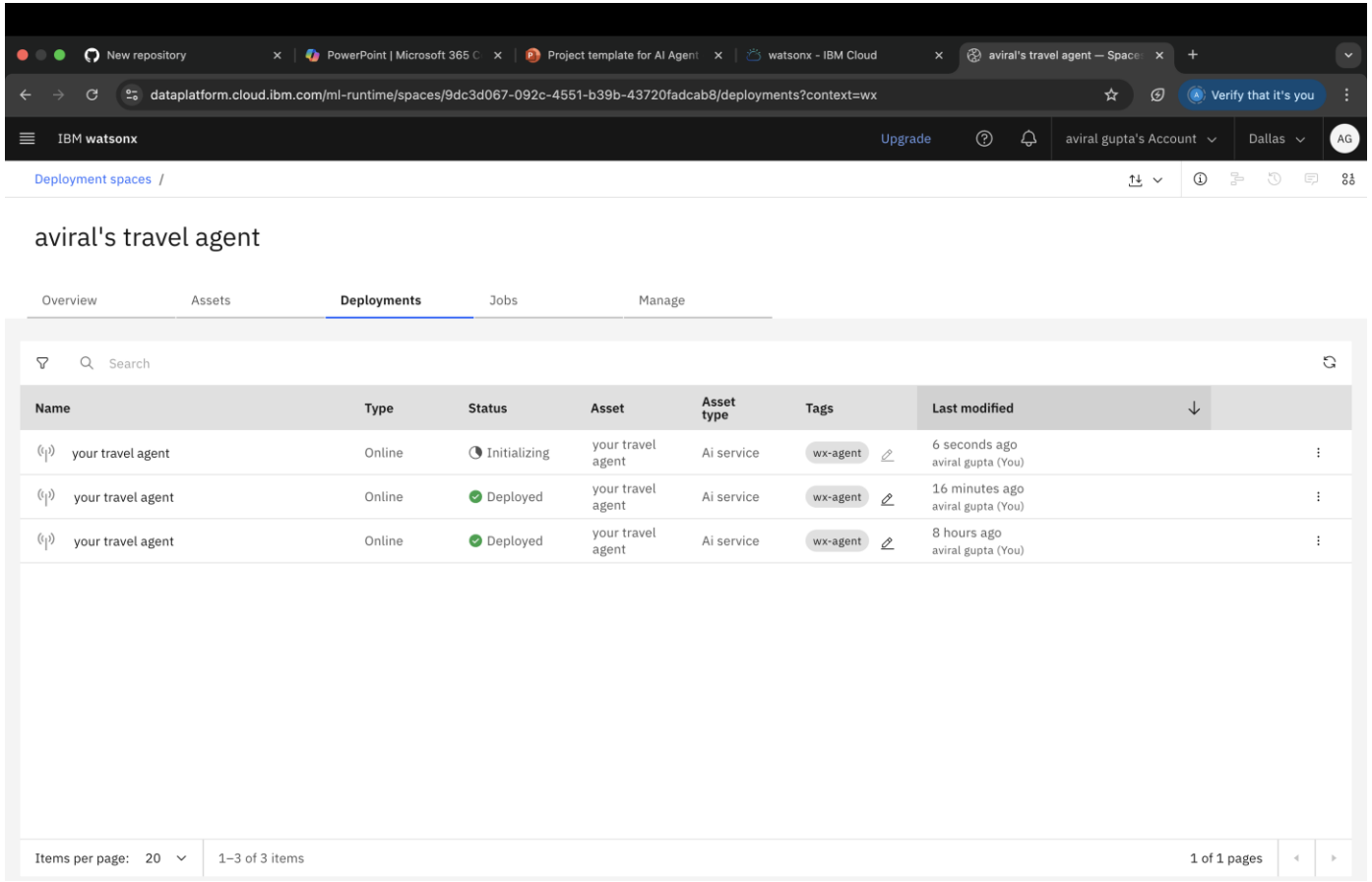
RESULTS:- AGENT DEPLOYED



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CONCLUSION

- The AI Travel Planner Agent assists users by generating personalized itineraries, suggesting destinations, and managing real-time travel data.
- It automates time-consuming tasks like planning routes, finding accommodations, and checking weather updates, improving the overall travel experience. By enhancing convenience, personalization, and efficiency, the agent transforms traditional trip planning into a seamless and intelligent process—empowering travelers with smart, data-driven travel solutions.

FUTURE SCOPE

- **Voice-Enabled Assistance** – Integrate with voice assistants like Alexa or Siri for hands-free planning.
- **Multilingual Support** – Enable interaction in regional and international languages for global reach.
- **Real-Time Booking Integration** – Connect with airlines, hotels, and transport systems for instant bookings.
- **Augmented Reality (AR)** – Offer virtual previews of destinations and accommodations.
- **Group Travel Coordination** – Plan trips collaboratively for families, friends, or corporate teams.
- **Sustainability Insights** – Recommend eco-friendly travel options and carbon footprint tracking.
- **AI-Based Budget Optimization** – Dynamically adjust plans to fit changing budgets and preferences.

IBM CERTIFICATIONS

- Screenshot/ credly c

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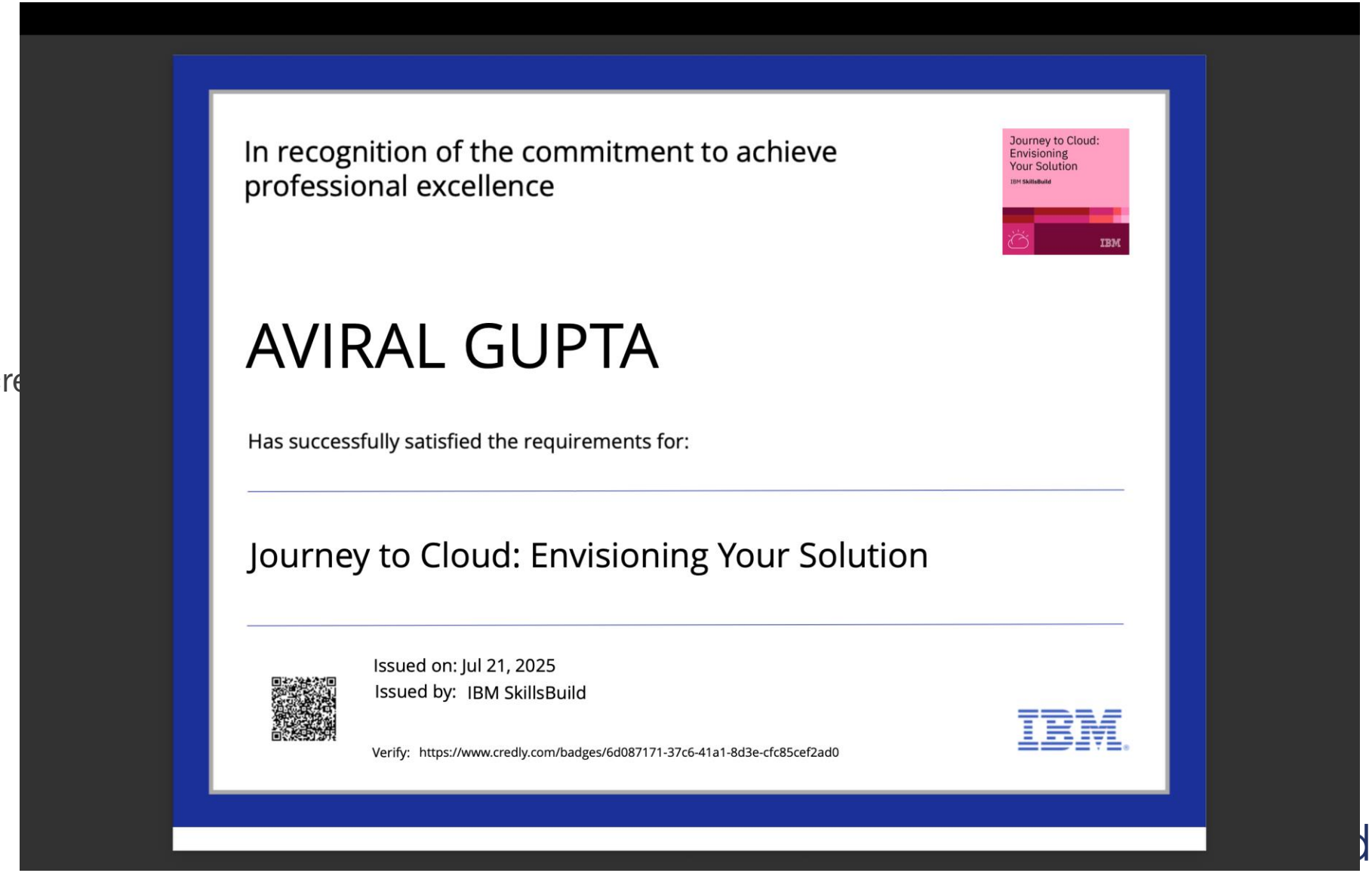
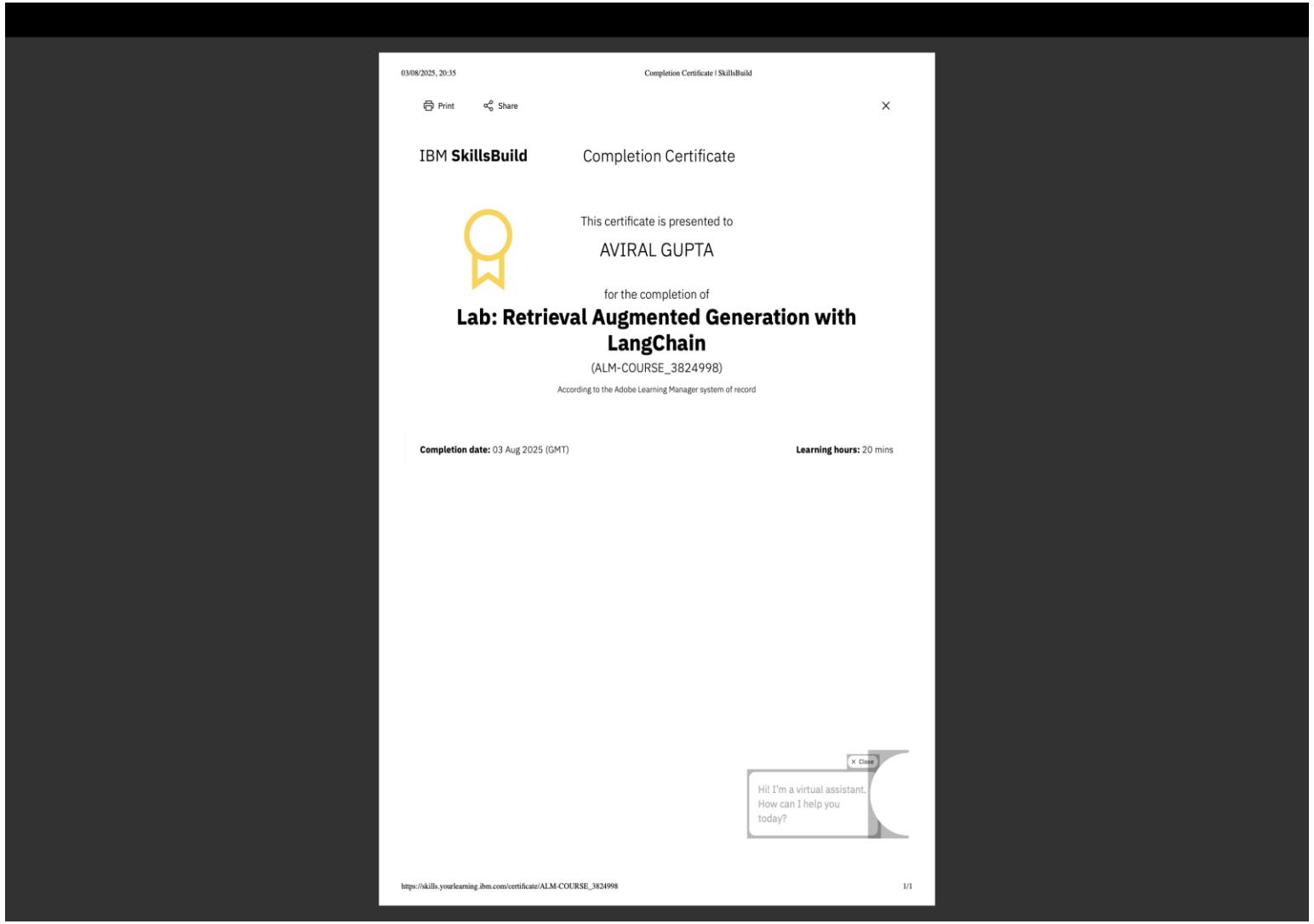
- Screenshot/ cre



Attach your RAG LAB certificate here



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GITHUB LINK

- Make sure that there should be readme file

THANK YOU

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