DAY – 19

On Day 19, the focus was on the core intelligence complete, today was about linking the powerful Python backend to our JavaScript web application and conducting final performance checks.

- **API Integration:** Established the final Flask API endpoint (/ask) to receive the user's text query from the frontend and pass it to the LangChain Agent.

- **Data Serialization:** Ensured the complex response from the Agent (which includes the final answer, RAG sources, and Agent steps) is cleanly converted to JSON format for reliable transmission back to the web interface.

- **Frontend UX Refinement:** Integrated the final features into the web application: a cleaner display for the Agent's response, showing the source chunks/evidence used by RAG to generate the answer for transparency.

- **Prompt Evaluation:** Conducted final A/B Testing on two critical Agent prompts by logging model output, response time, and token usage using the techniques learned on Day 10. This validated the efficiency of our final prompt design.

CONCLUSION

- Successfully linked the Python LangChain agent to the web interface, ensuring smooth data flow for a production-ready application.

- Verified the project's performance and efficiency using structured prompt evaluation techniques.