**📑 Day 3 Progress Report – Building AI Application Challenge**

**🔹 Application Concept**

I am building an **AI-driven application** that integrates an LLM API to deliver intelligent, interactive conversations. The vision is to provide users with a **seamless, reliable, and user-centered experience** through advanced context management, error handling, and feedback integration.

**🔹 Progress Achieved (Day 3)**

* **Enhanced API Integration**
  + Expanded from single-turn responses to **multi-turn conversations** with memory.
  + Implemented **error handling** for timeouts, rate limits, and invalid responses.
  + Optimized performance using **caching** and request tuning.
* **User Interface Enhancement**
  + Integrated backend API with a prototype **UI (Gradio/Streamlit)**.
  + Added **loading indicators** for smoother interaction.
  + Introduced a **feedback system** (👍/👎) to evaluate responses.

**🔹 Challenges & Solutions**

* **API Rate Limits**: Solved with retry logic and fallback flows.
* **Maintaining Context**: Implemented a session-based memory buffer.
* **UI Responsiveness**: Added asynchronous handling and loading states.

**🔹 Current Status**

* API core pipeline is **functional** with error management.
* Early **UI prototype connected** to backend.
* Feedback loop in place.
* App foundation is ready for Day 4+ scaling.

**🔹 Next Steps**

* Refine the **UI/UX** for a smoother experience.
* Enhance caching and optimization for larger workloads.
* Expand GitHub repo with updated code and README.
* Prepare a consolidated **Day 4 progress submission** with tech stack details.

**🔹 Evidence (Day 3 Checkpoint)**

* Attached screenshot of **running code/UI prototype** as proof of progress.
* A screenshot of a computer

  AI-generated content may be incorrect.

**🔹 Optional Links**

* **GitHub Repo**: https://github.com/abinshihab/AI-Driven-Cloud-Operations-Monitor-Scaling-Assistant/tree/main
* **LinkedIn Post**: https://www.linkedin.com/feed/update/urn:li:activity:7379334109673820160?utm\_source=share&utm\_medium=member\_desktop&rcm=ACoAAAzwm4oBOnVIChAzlHfa9GC20oSfKVdplYE