



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.
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◆ 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.
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◆ Current Status

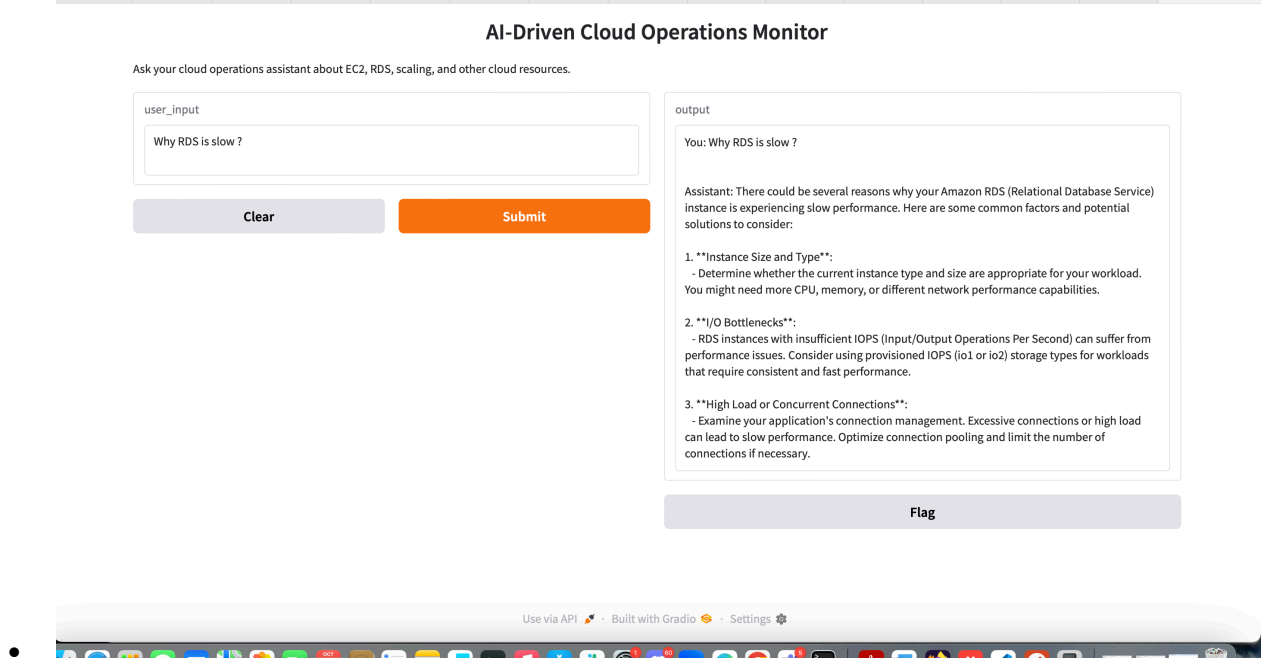
- API core pipeline is **functional** with error management.
 - Early **UI prototype connected** to backend.
 - Feedback loop in place.
 - App foundation is ready for Day 4+ scaling.
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◆ Next Steps

- 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.



◆ 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