Automatiq.ai Home Assignment

Overview

Build a small web app where users can chat with an AI agent that recommends products based on the conversation. The goal is to demonstrate your ability to design an end-to-end AI system integrating a model (and model's evaluation), backend, and frontend.

Requirements

- Frontend: React (TypeScript preferred) - chat interface for user-agent interaction.
- Backend: Python + FastAPI - manages the chat flow, model calls, and recommendation logic.
- Model: Either Local model via Ollama (e.g., gpt-oss, llama3, qwen), or Hosted LLM API (OpenAI, Anthropic, etc.).
- **Note:** The backend should allow easy switching between providers.

Functionality

- The agent holds a short conversation to understand user needs.
- It recommends one or more products (based on [small catalog](#)).
- It explains its reasoning in natural language.
- Include minimal evaluation or monitoring: Log conversations, Track basic metrics (e.g., number of turns, feedback, latency), Display or export results (simple dashboard, CSV, or API)

Deliverables

- GitHub repo containing:
    - frontend/ and backend/ directories
    - README.md with setup and design notes
    - Optional: Dockerfile or docker-compose.yml

Additional Notes

Extra thoughtfulness, creativity, and initiative are encouraged and will be appreciated.

There's room for experimentation as long as the core requirements are met.

Example Interaction

User: "I need a laptop for deep learning."

Agent: "Do you prefer portability or maximum GPU power?"

User: "GPU power."

Agent: "I recommend the NVIDIA RTX Workstation - strong CUDA performance for model training."