



AI Developer Assignment – Dumroo.ai

This task is designed to assess how well you can apply AI to solve real-world problems—specifically around natural language querying and role-based access to data.

Demonstrate your ability to build an AI system that understands simple English queries and fetches data from a structured source (like a database, CSV, or JSON), with role-based access control.

Imagine you're building a feature for the Dumroo Admin Panel. Admins should be able to ask questions in plain English like:

- “Which students haven’t submitted their homework yet?”
- “Show me performance data for Grade 8 from last week”
- “List all upcoming quizzes scheduled for next week”

Access Context:

Keep in mind: Admins in this case are not super admins—they should only be able to access data relevant to their assigned grade, class, or region. That means:

- They can view student activity in their own scope
- They should NOT be able to access platform-wide user or admin data

Try to include basic role-check logic or scoping filters to reflect this in your implementation.

Task Requirements:

1. Choose or create a small dataset (CSV or JSON is fine) with fields like student name, class, submission status, quiz scores, and dates.
2. Build a simple AI-powered system where someone can type natural questions and get

filtered results.

3. Use a tool like LangChain or LlamaIndex to parse the question and fetch the relevant data.

Bonus (Optional):

- Add a basic interface with Streamlit or Gradio to demo the interaction.
- Optional: Add agent-style handling to answer follow-up questions.
- Bonus: Keep the code modular in case we want to connect it to a real DB later.

What to Submit:

- GitHub repo link with:
 - Python code or Jupyter Notebook
 - A short README with setup steps and 2–3 example queries
- (Optional) Screenshots or a short Loom video demo

Tech Stack Suggestions:

Python, Pandas, LangChain, OpenAI API, Streamlit or Gradio

Timeline:

Please aim to complete and share your submission within 3 days.