Assignment

Objective

You are required to build a **multi-agent system** that can:

- Accept a user query.
- **Plan** the solution steps.
- **Route** queries to the correct tools.
- **Execute** tool calls with retries, cache, and timeouts.
- Produce a final answer.
- **Log every stage** (plan, tool calls, decisions, critic validation, repairs, and final output) in a structured JSON file.

Agent Tools

1. **Retriever** → Load KB and return top-K passages.
2. **Calculator** → Perform arithmetic safely.
3. **PolicyLookup** → Shortcut retriever for policy/FAQ docs.
4. **StringTools** → Extract numbers, percentages, etc.

Deliverables

- agent.py or agent.ipynb (agent logic).
- knowledgeBase.txt (Knowledge Base provided).
- logs.json (run logs for 5 queries, given below).
- README.md (how to run, retriever choice, logic, assumptions).
- GitHub link with all code, KB, and logs.