DAY – 18

On Day 18, the focus was on transforming our research chain into a smart LangChain Agent capable of making real-time decisions, primarily through Function Calling.

We defined custom Python functions (tools) that the AI agent could use:

- live_date_check(): Returns the current date (simulating a live data API).

- calculate_expression(expression): Uses Python's capability to solve math problems.

We configured the LangChain Agent using the ReAct (Reasoning + Action) pattern:

- **Tool Integration:** Successfully integrated the custom Python functions (tools) with the Agent, demonstrating how functions can be linked to external APIs for real-time, useful outputs.

- **Dynamic Decision-Making:** Tested the agent's ability to switch seamlessly between RAG retrieval (for document-based queries) and Function Calling (for calculation or live data queries).

CONCLUSION

- Mastered the process of defining reusable blocks of code (functions) and connecting them to the AI using the LangChain framework.

- Successfully built an Agent capable of interpreting user input and dynamically selecting the correct tool or chain to use based on context.