LangGraph Agentic Workflow

Demonstrating FastAPI + LangGraph integration with Agentic Workflows.

# 1. Introduction

This document provides an overview of the LangGraph Agentic Workflow implemented with FastAPI. It explains the architecture, core logic, benefits, and includes example diagrams for clarity.

# 2. Core Logic

The main components of the workflow are:

* • Natural Language converted into structured inputs
* • ExecutionContext for orchestrating tasks
* • Tools registered and dynamically invoked
* • State management using LangGraph
* • Output aggregation and response generation

# 3. Benefits

Key advantages of this approach include:

* • Scalable and modular workflow
* • Seamless integration of multiple tools
* • Real-time execution with FastAPI endpoints
* • Improved maintainability with clear separation of concerns

# 4. Visual Architecture

The following diagram illustrates the flow of the system:

[Architecture Diagram Placeholder - can be replaced with actual image]

# 5. Example Workflow

Example: A query is processed as follows:

1. 1. User inputs a natural language request.
2. 2. The request is parsed into structured input.
3. 3. The system invokes the appropriate tool.
4. 4. Results are aggregated and returned.