

# Lab: LLM Agents

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**Objective:** Build an autonomous research agent.

## Task 1: Tools Setup

- Get API key for Tavily (Search) or set up a mock search tool.
- Define a Python function `search(query: str)`.

## Task 2: Agent Loop

- Use LangGraph or raw Python loop.
- Prompt: "You have access to tools. Use them to answer."
- Parse LLM output → Execute Tool → Feed back result.

## Task 3: Complex Query

- Ask: "Compare the battery life of iPhone 15 vs Pixel 8."
- Agent should search for both, then synthesize.