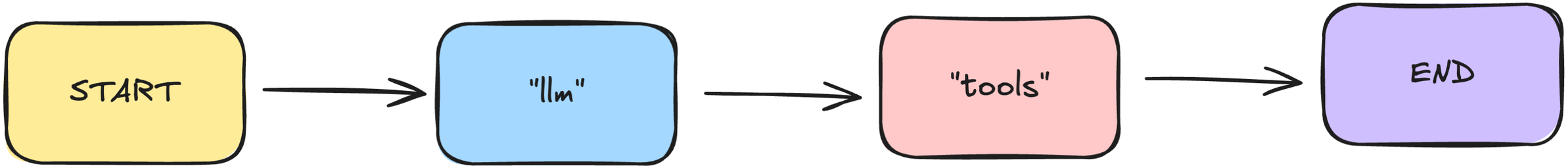
To tool or not to tool!

MULTI-AGENT SYSTEMS WITH LANGGRAPH

James Chapman
Curriculum Manager, DataCamp

datacamp

The linear agent

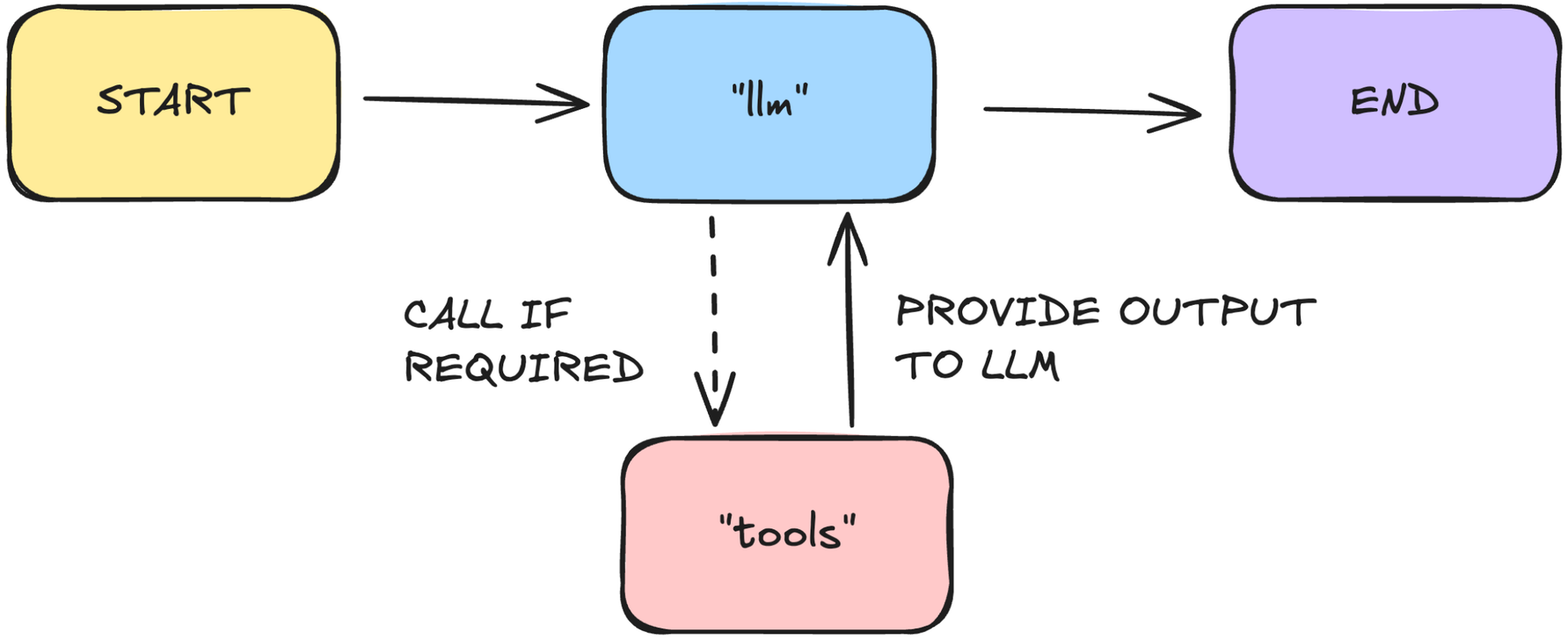


Could respond to some queries

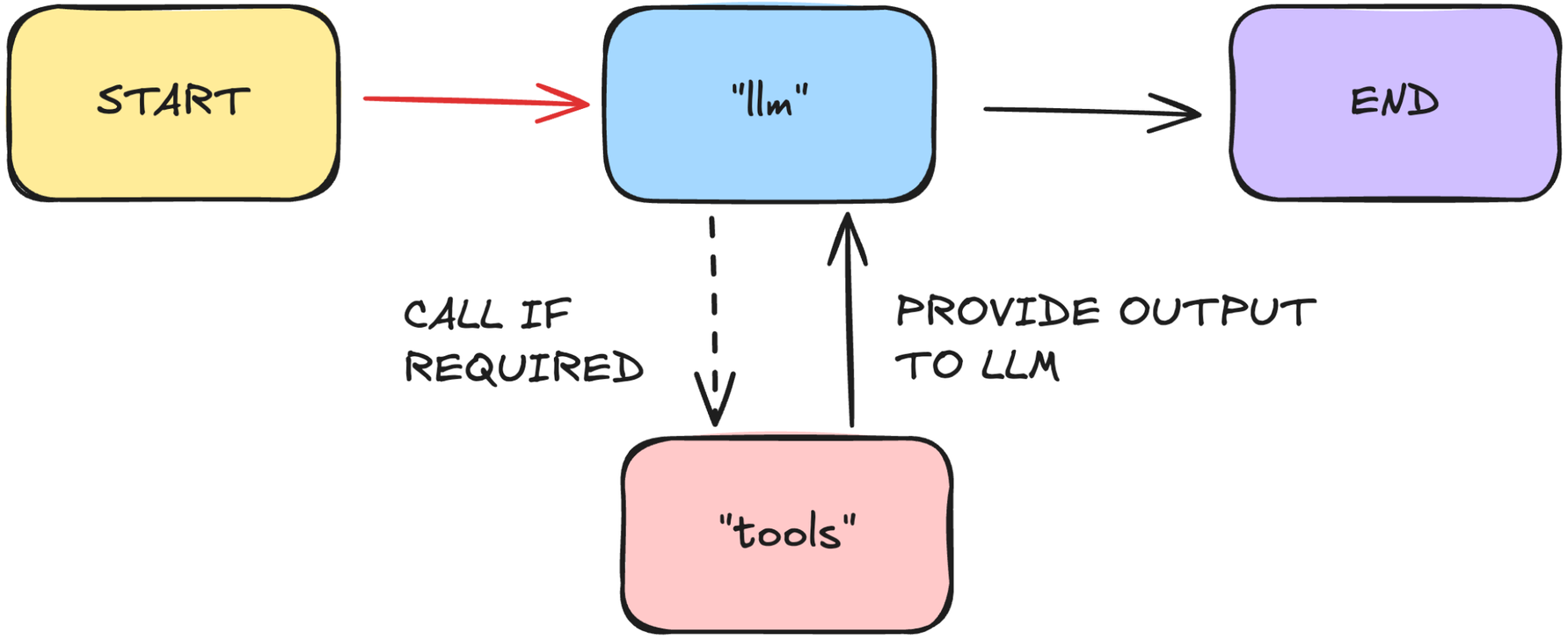
Couldn't handle queries that don't require tools

Couldn't generate plots (requires *recursion*)

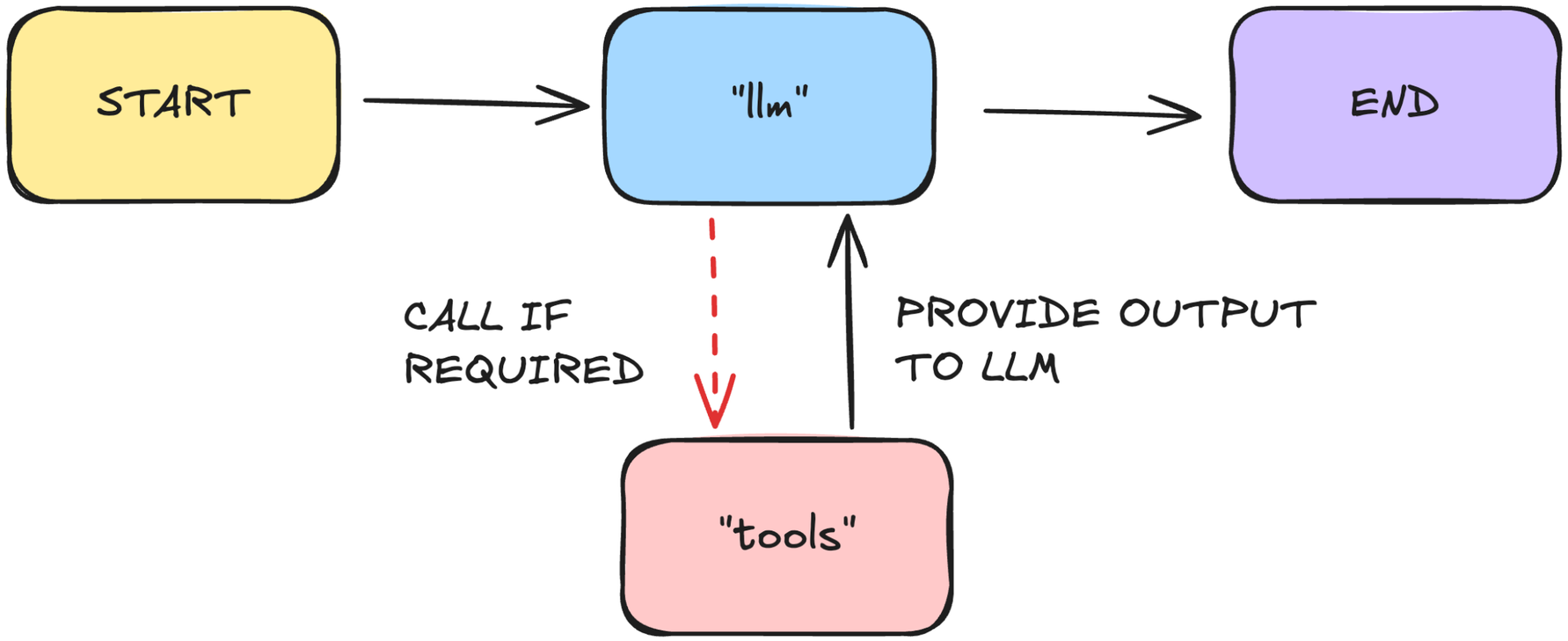
Conditional edges



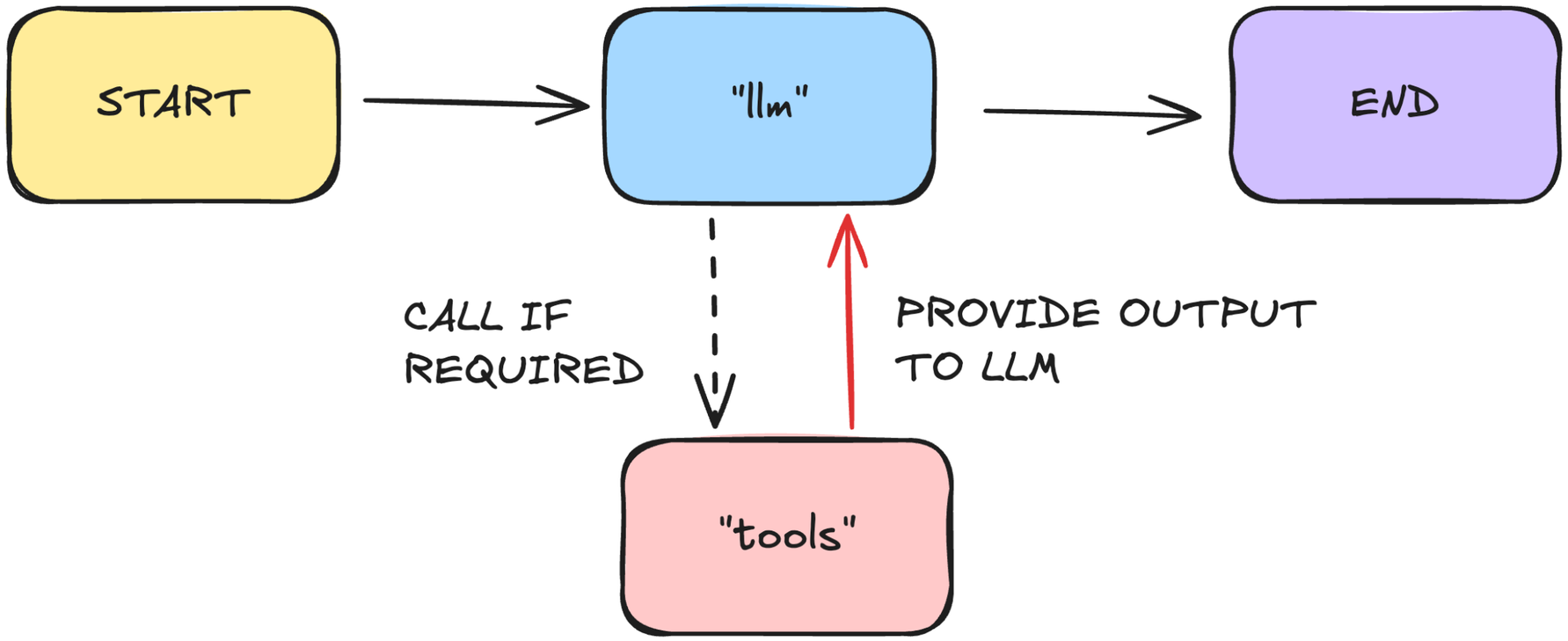
Conditional edges



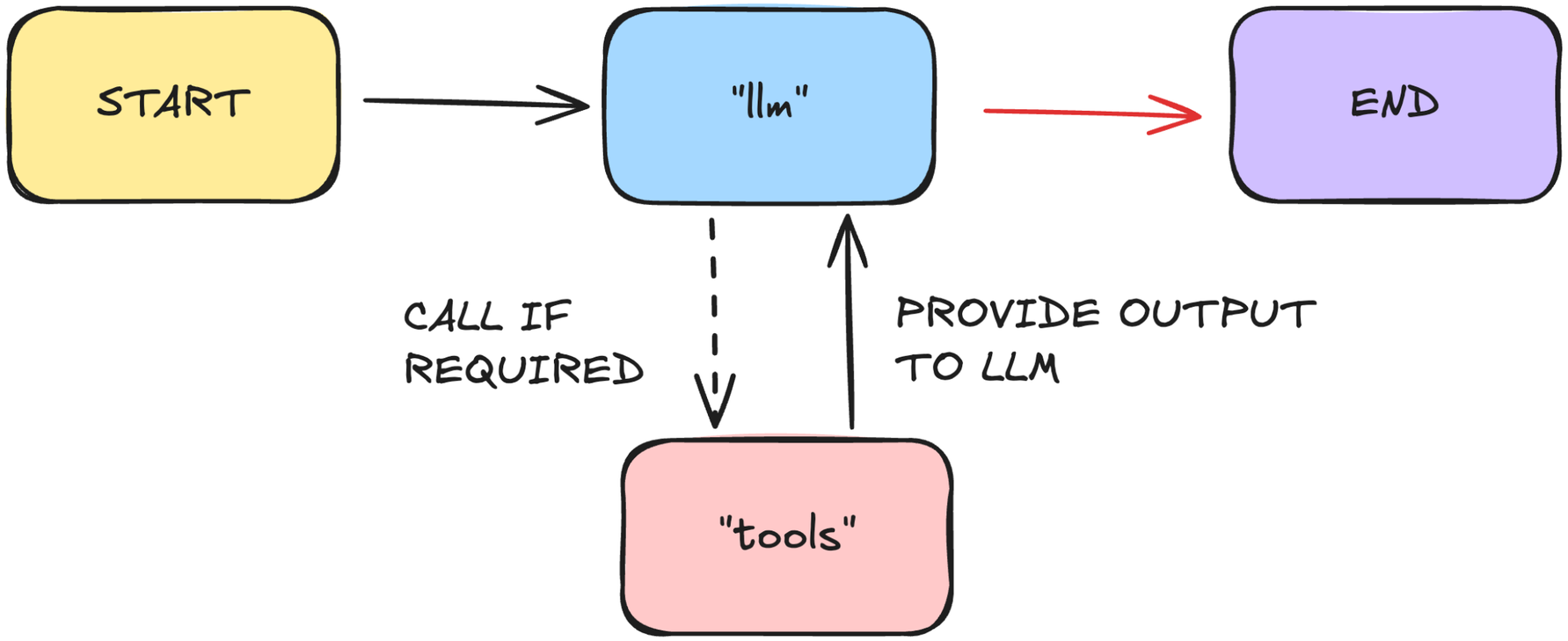
Conditional edges



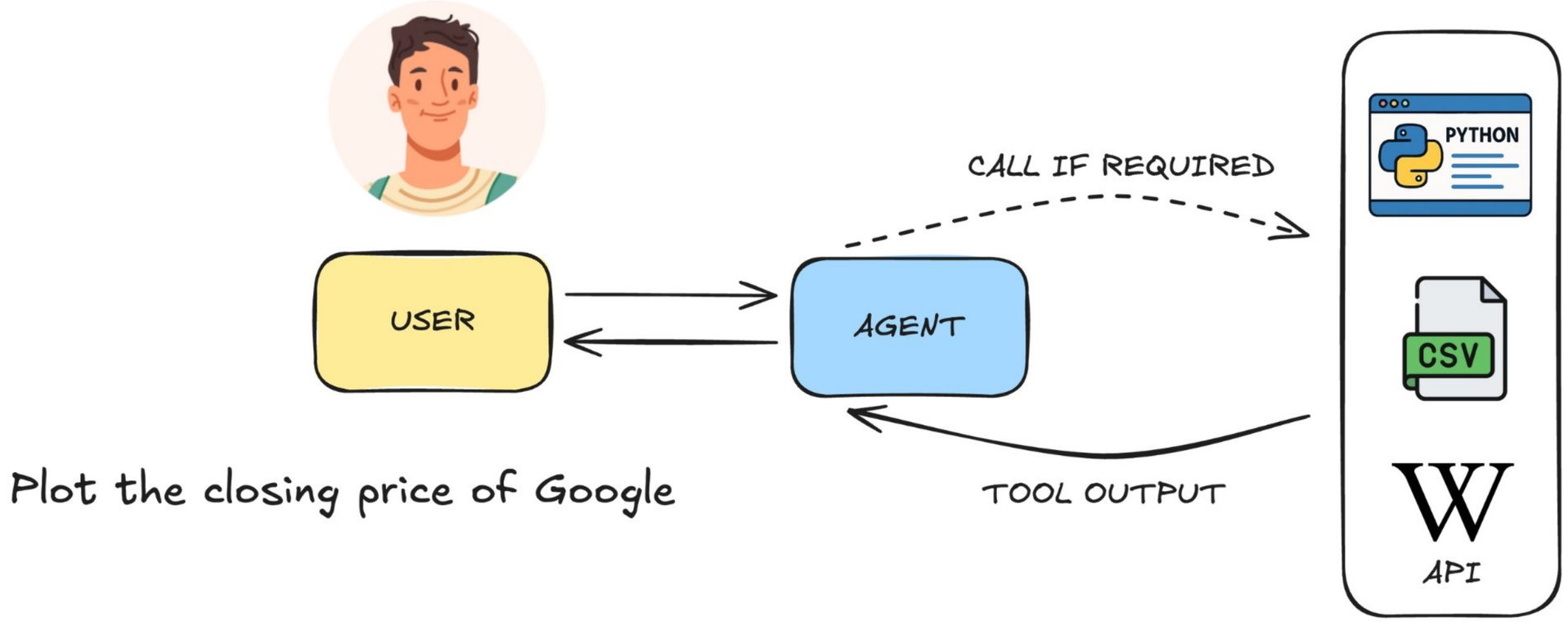
Conditional edges



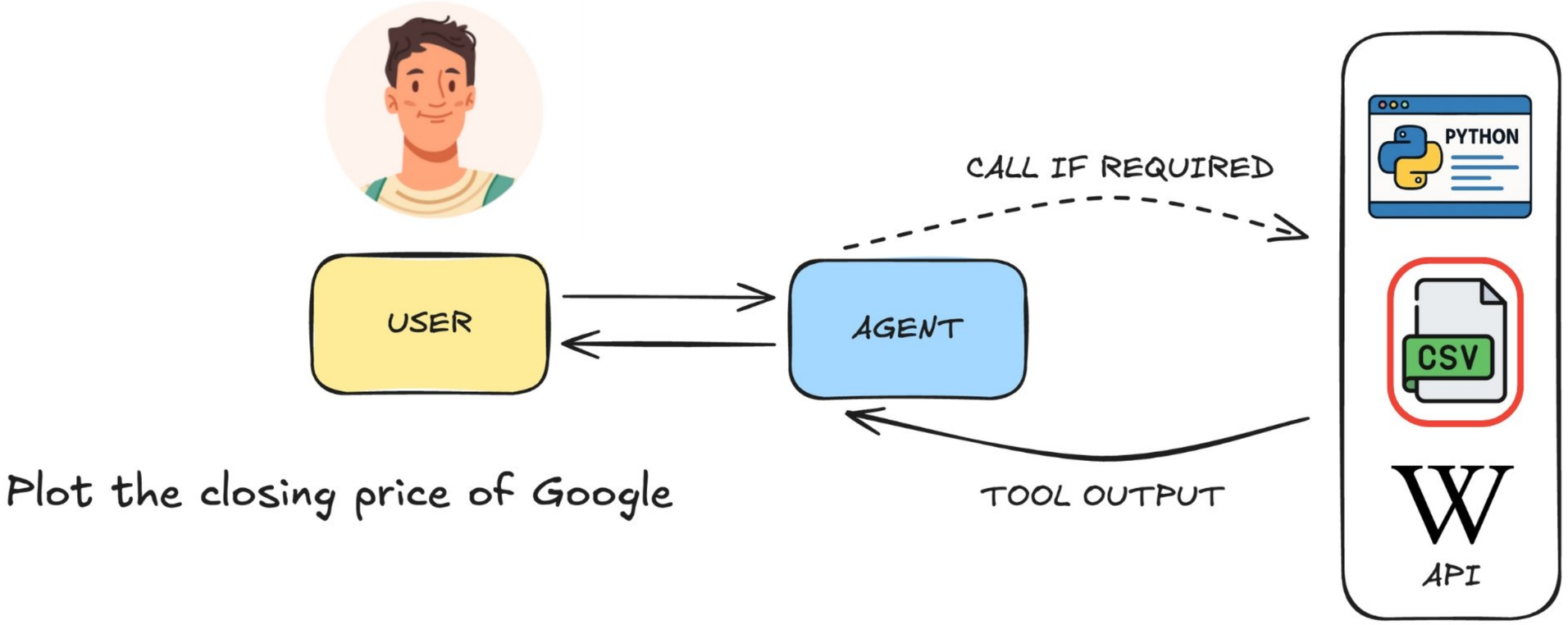
Conditional edges



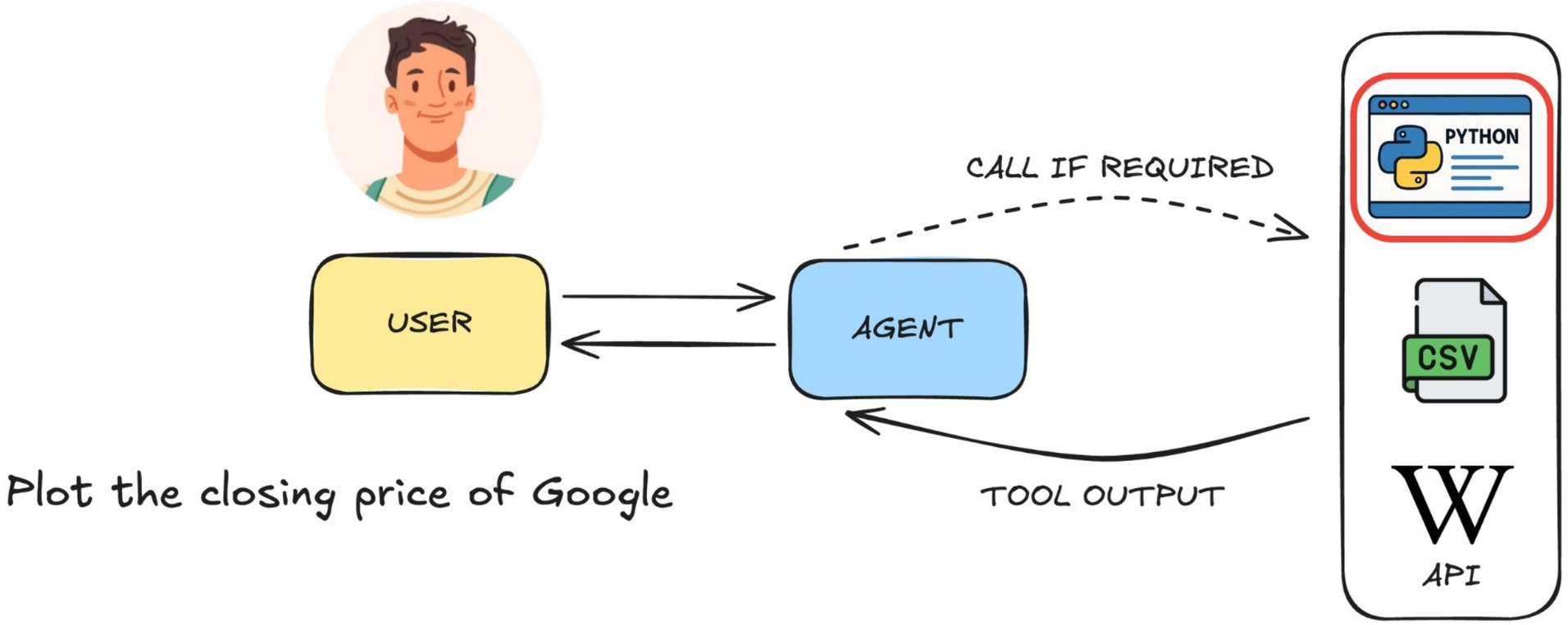
Conditional edges in practice



Conditional edges in practice



Conditional edges in practice



Let's practice!

MULTI-AGENT SYSTEMS WITH LANGGRAPH

Conditional tool calls

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One-line agents

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MULTI-AGENT SYSTEMS WITH LANGGRAPH

Multi-agent frameworks

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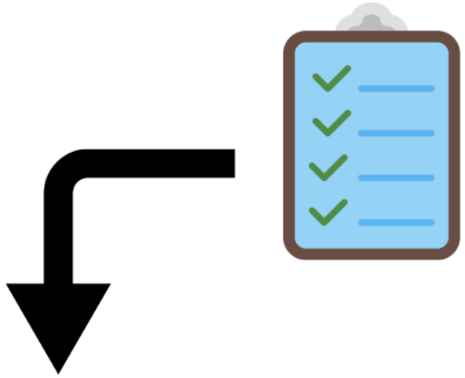
Example: website creator system

Specifications

Codebase

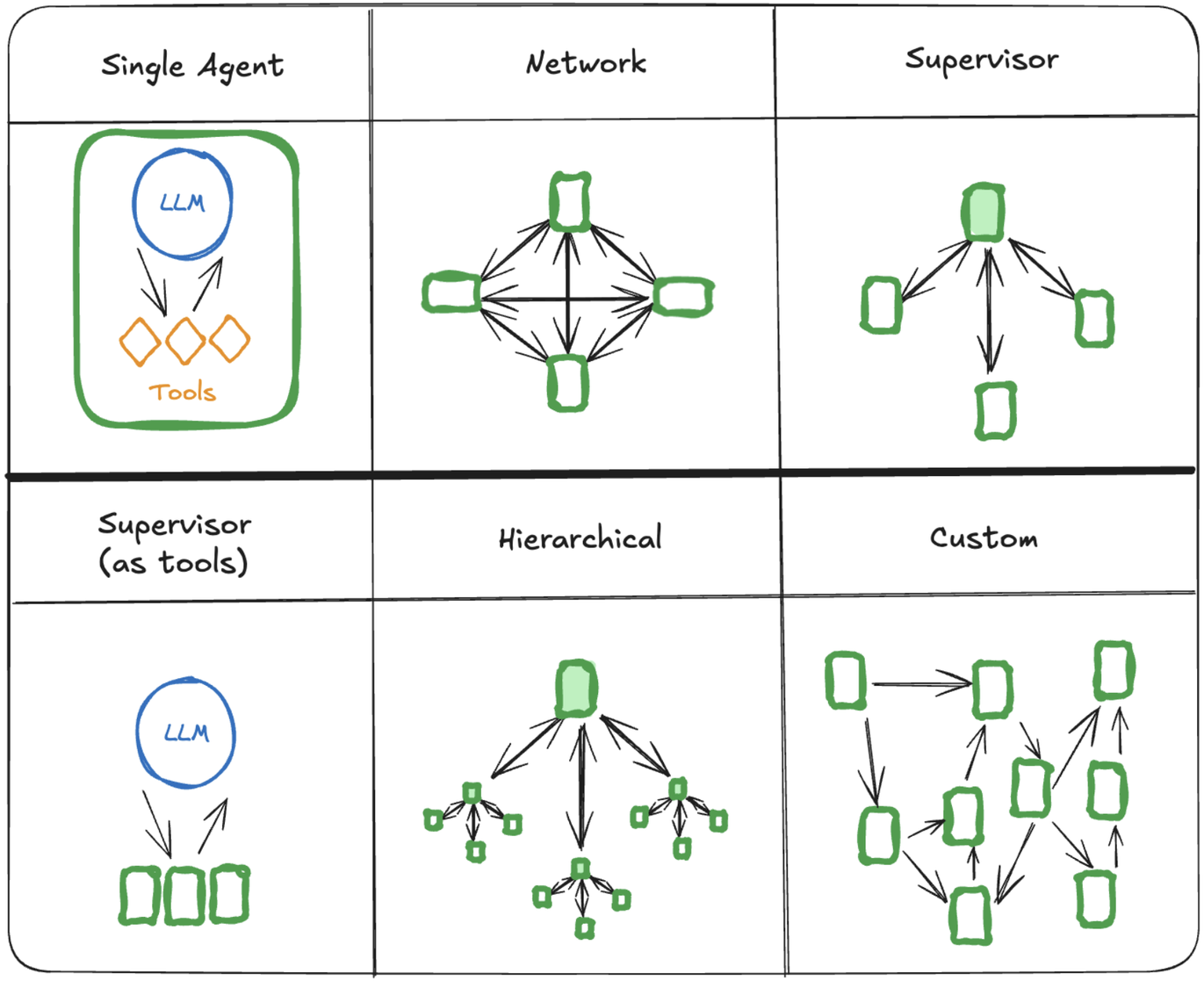
Brand Design

Specifications



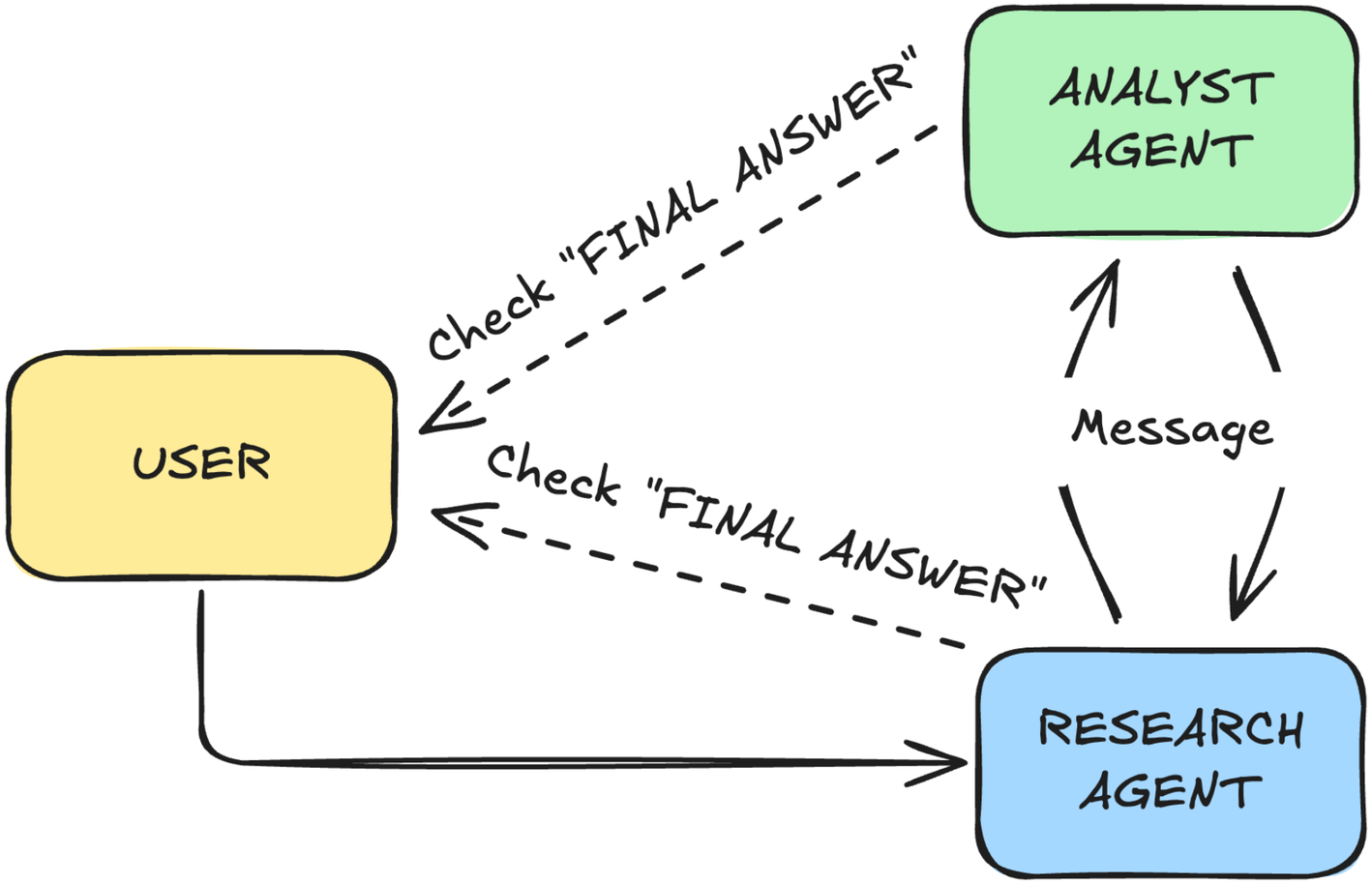
Brand Design

Codebase

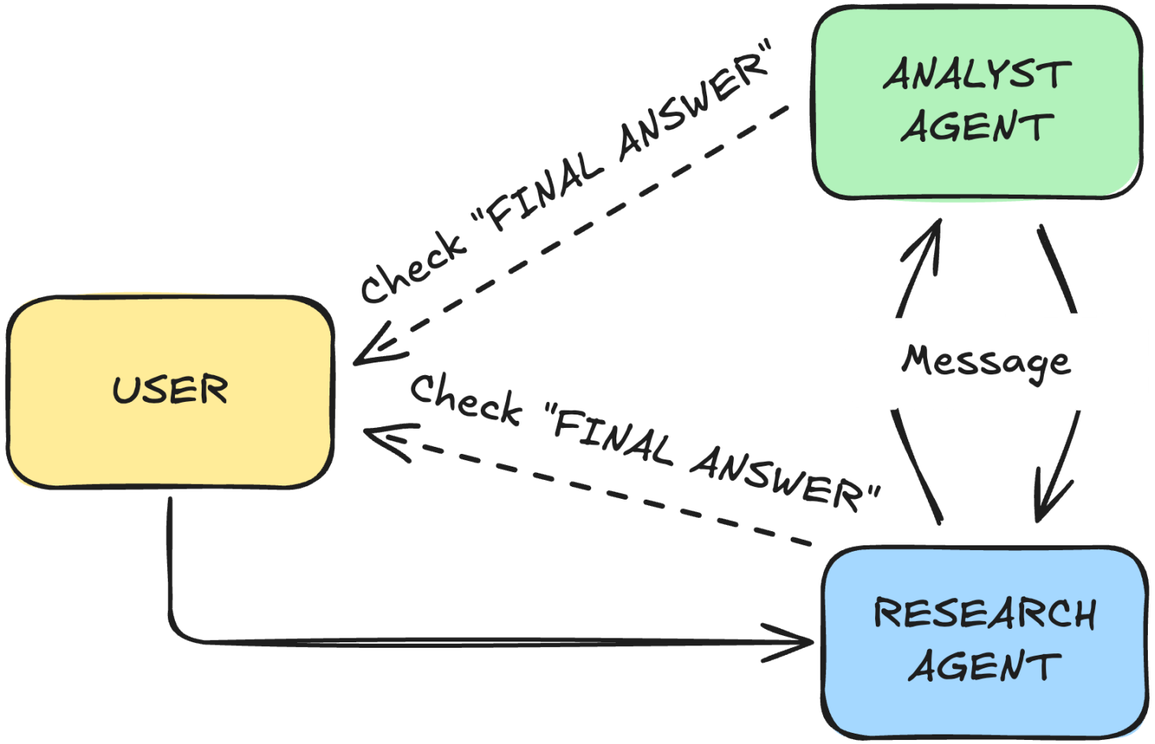


[1] Credit: LangGraph

Swarm multi-agents



Swarm multi-agents

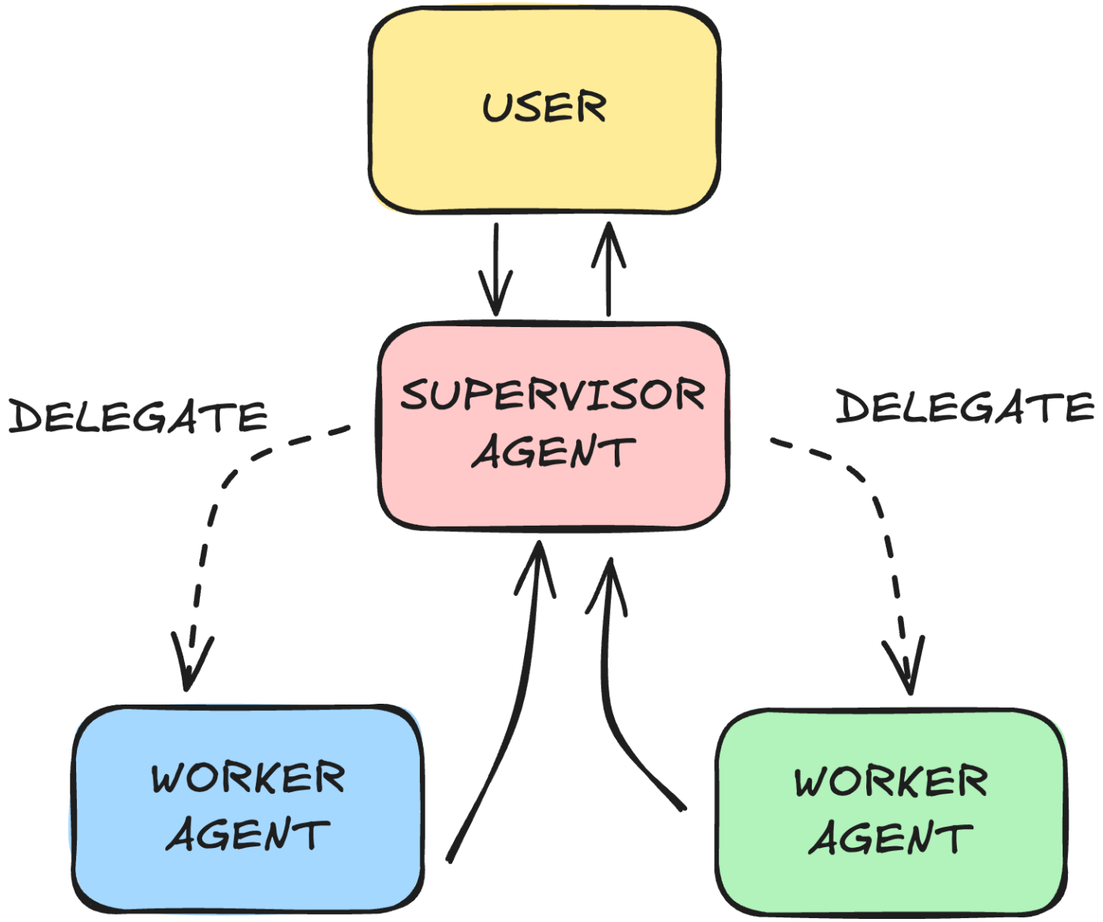


Challenges

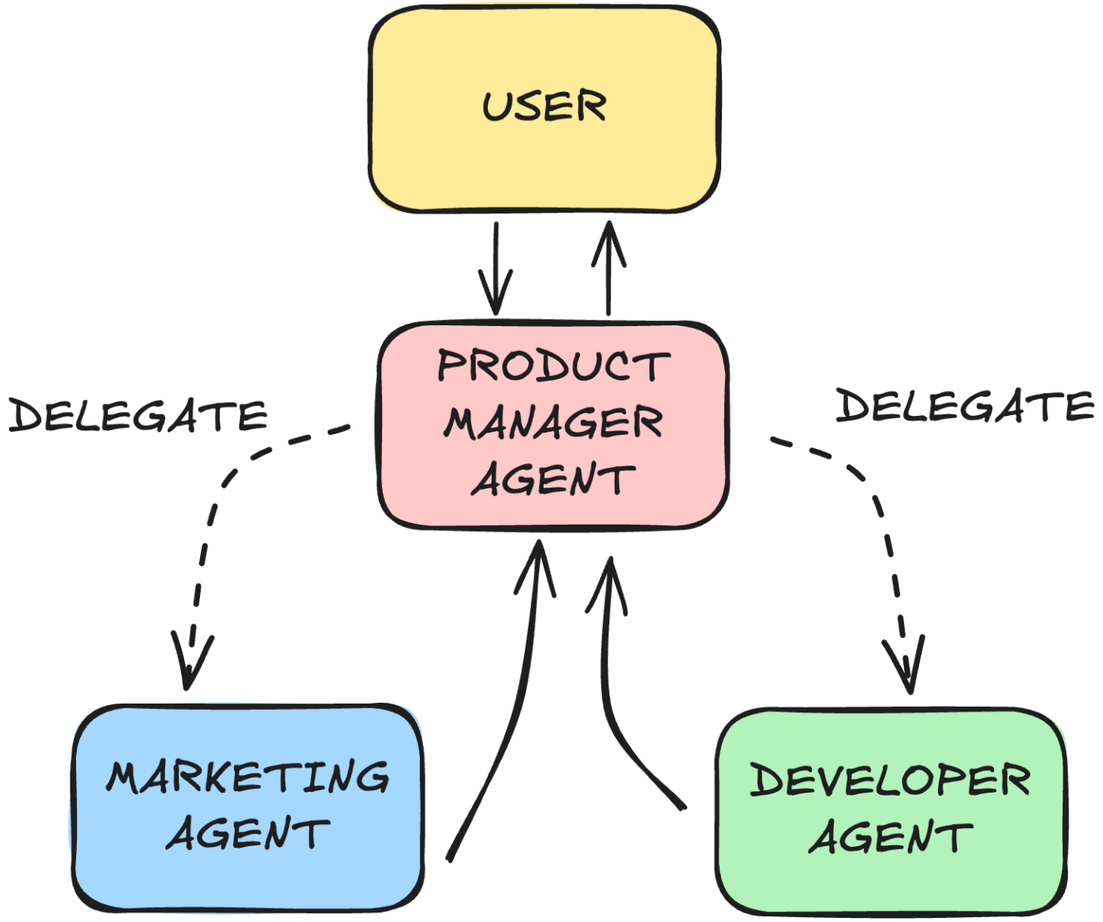
1. Agent collaboration
2. Choosing a starter agent

- Solution → a supervisor!

Supervisor multi-agents



Example: website creator system



Let's practice!

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Another agent!

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Instructor

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Supervisor agents

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Full Name
Instructor

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Wrap-up

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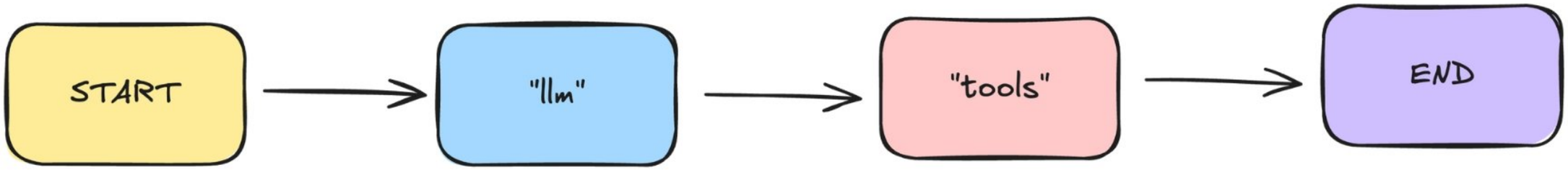
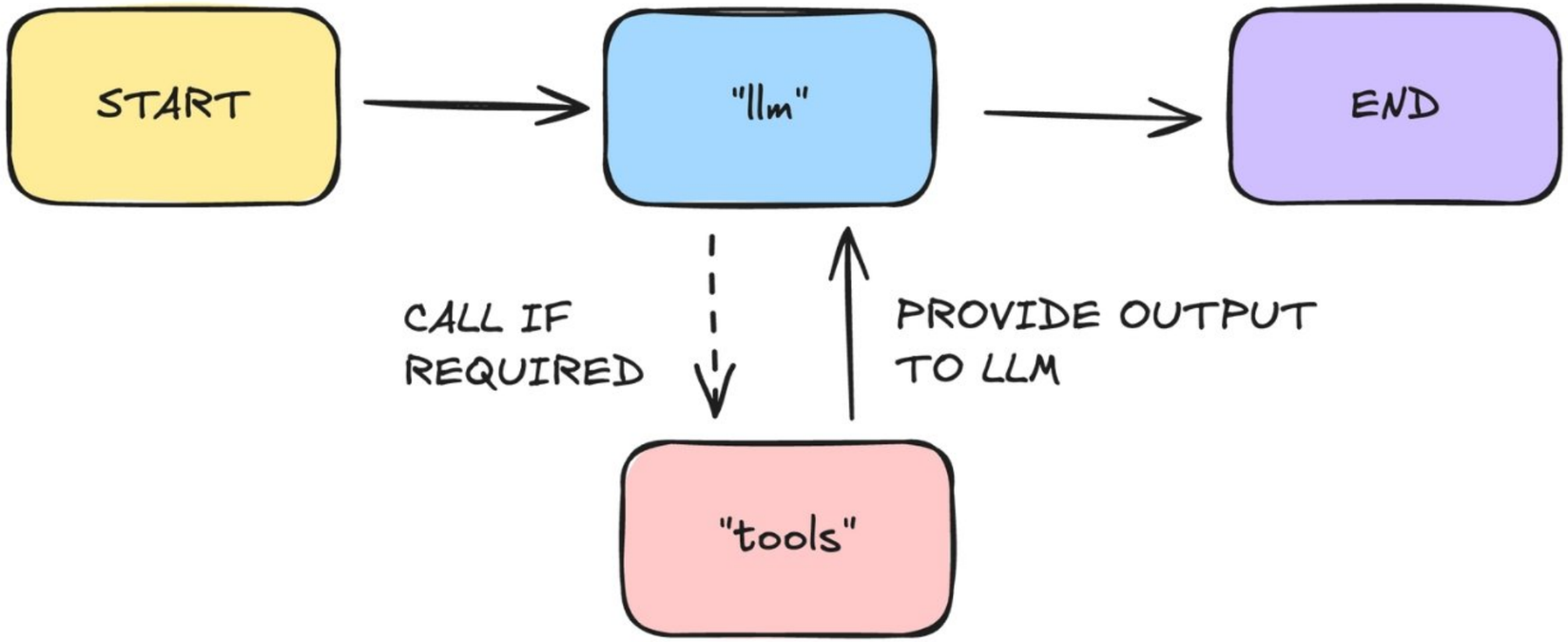
LLM-only graph

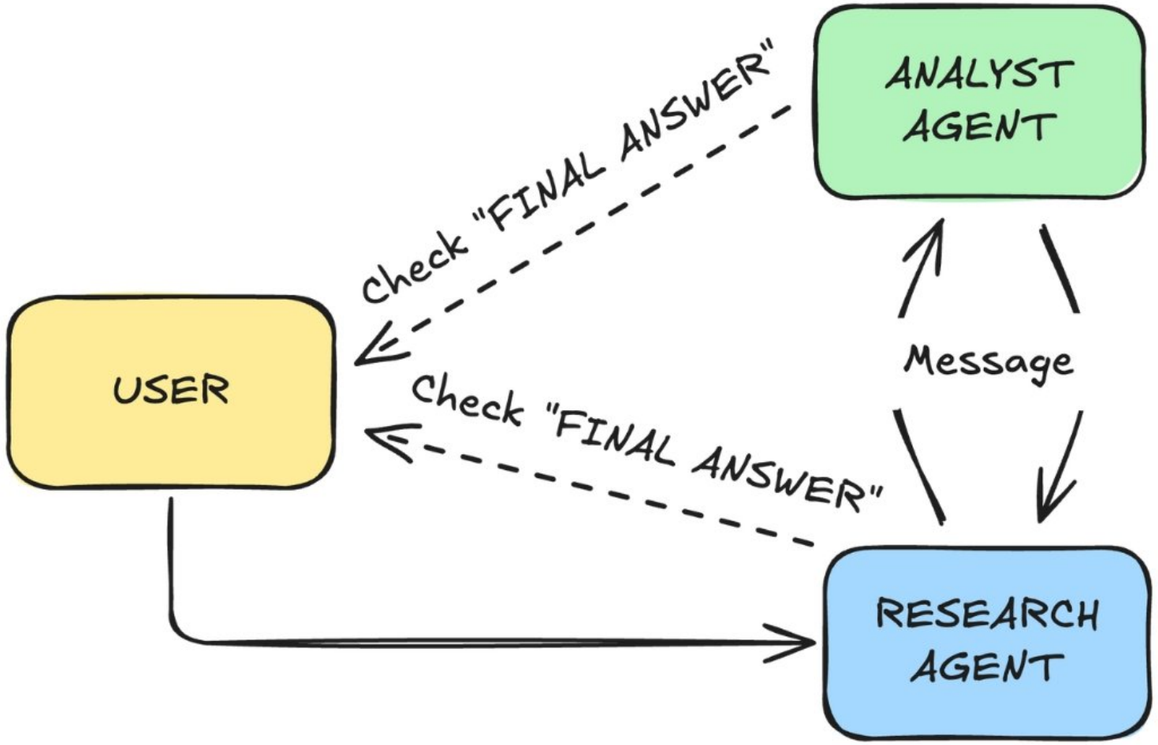
Linear agent



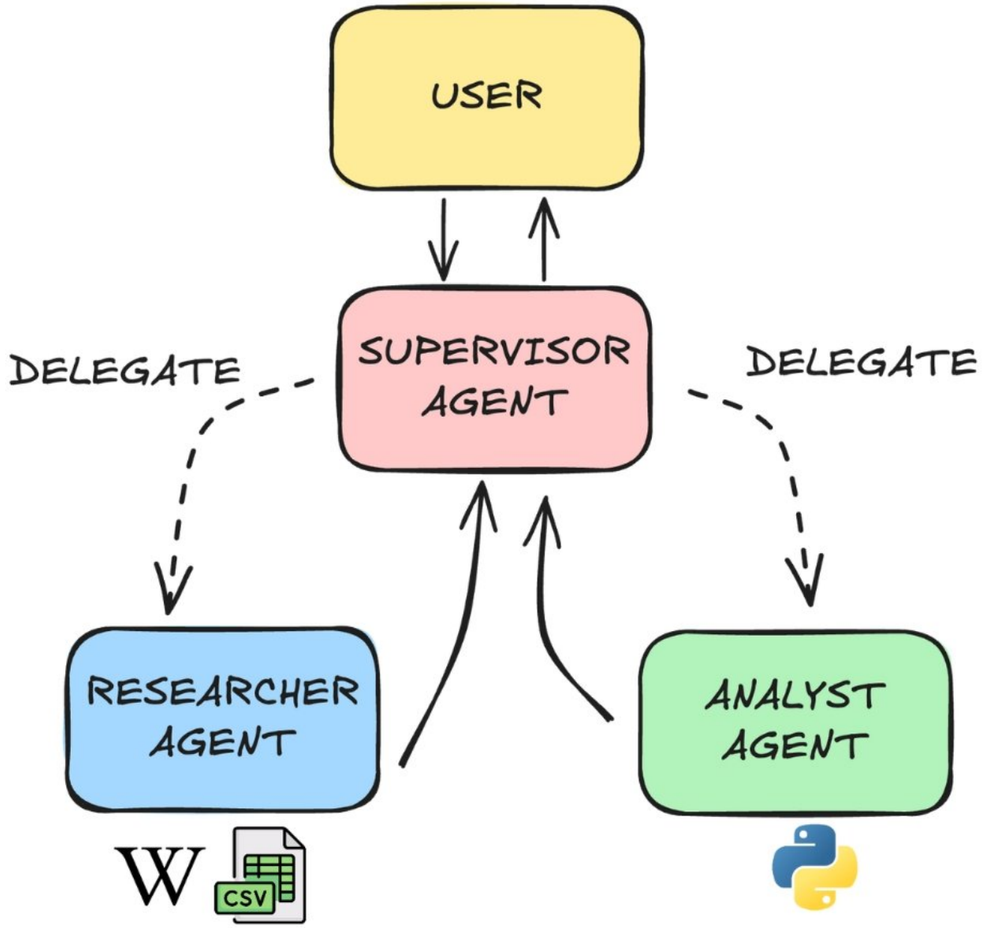
Conditional edges



Swarm multi-agent



Supervisor multi-agent



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