

AGENTS

TOP 4 AGENTIC PATTERN

IN

MULTI AGENT WORKFLOW

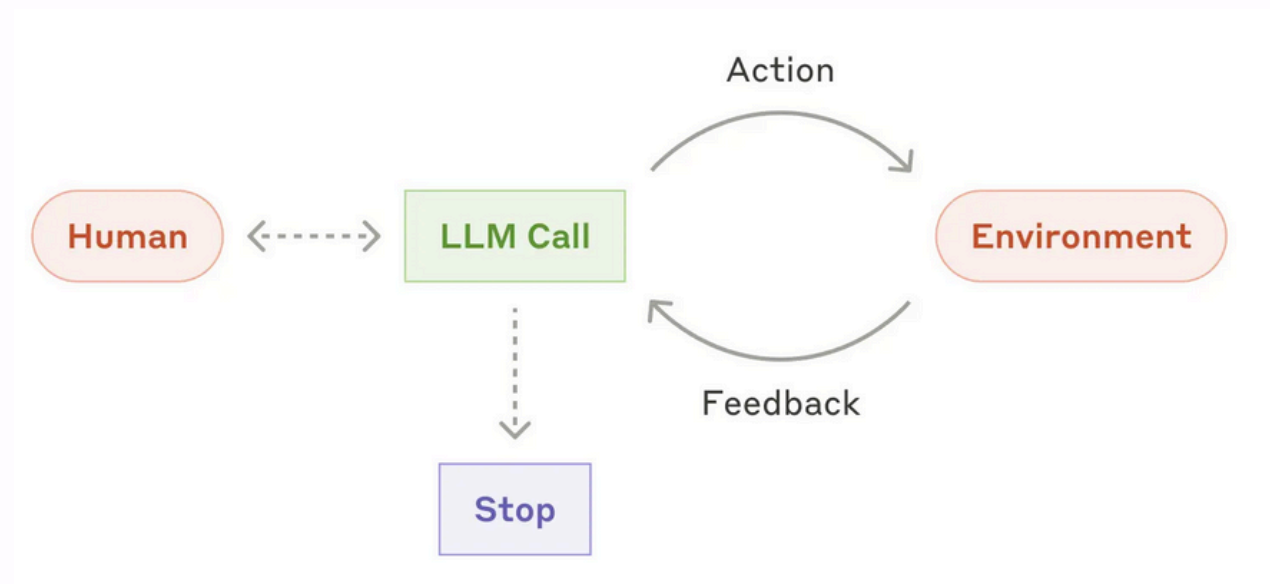


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Why MULTI AGENT Workflow?

Agents can be used for open-ended problems where it's difficult or impossible to predict the required number of steps, and where you can't hardcode a fixed path. The LLM will potentially operate for many turns, and you must have some level of trust in its decision-making

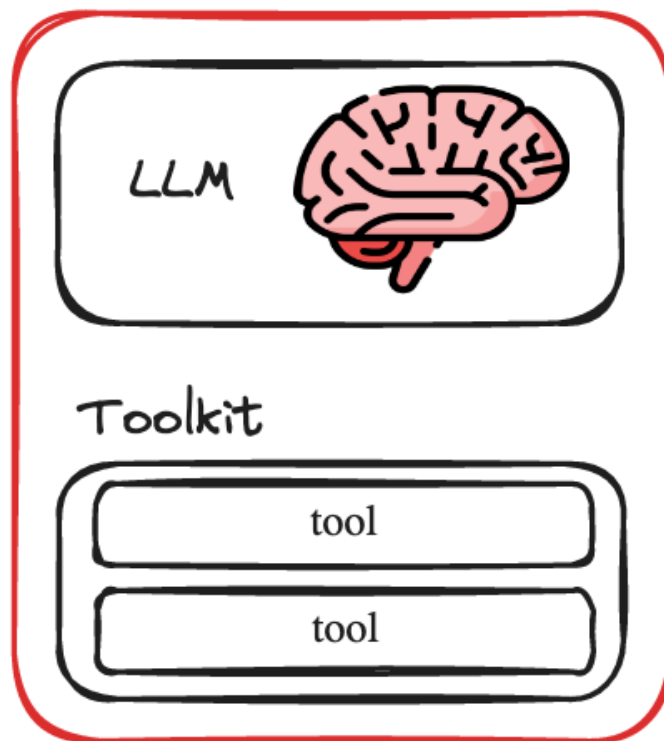


Autonomous agent

A multi-agent workflow uses subagents to manage tasks by dividing them into smaller, specialized agents. When an agent is overloaded, responsibilities are distributed among sub-agents for better efficiency. It is especially useful for tasks involving multiple topics, such as research and writing, by keeping the workflow efficient, scalable, testable, and extendable.



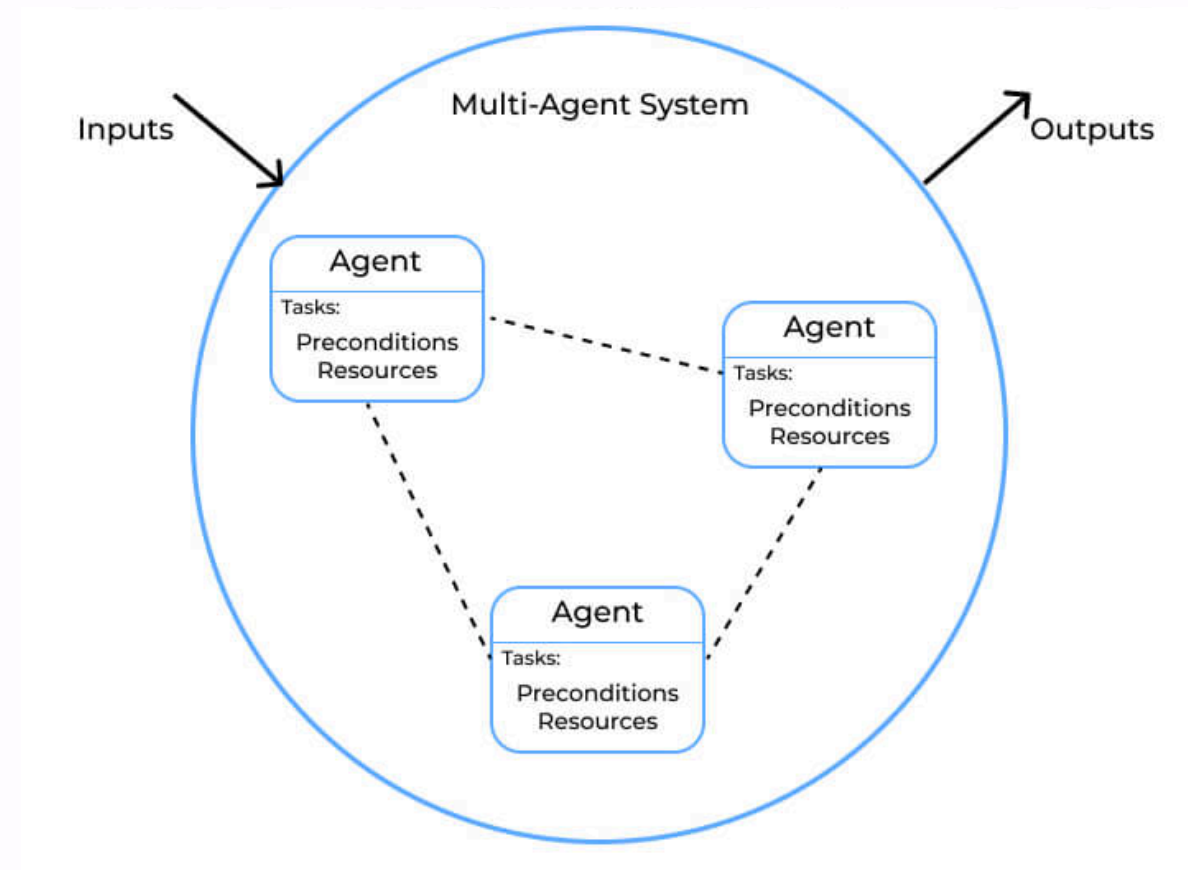
SIMPLE AGENTS



Simple agents are autonomous systems designed to perform specific tasks by directly interacting with external tools or environments. These agents leverage the capabilities of LLMs to understand instructions and execute actions without the need for complex decision-making processes



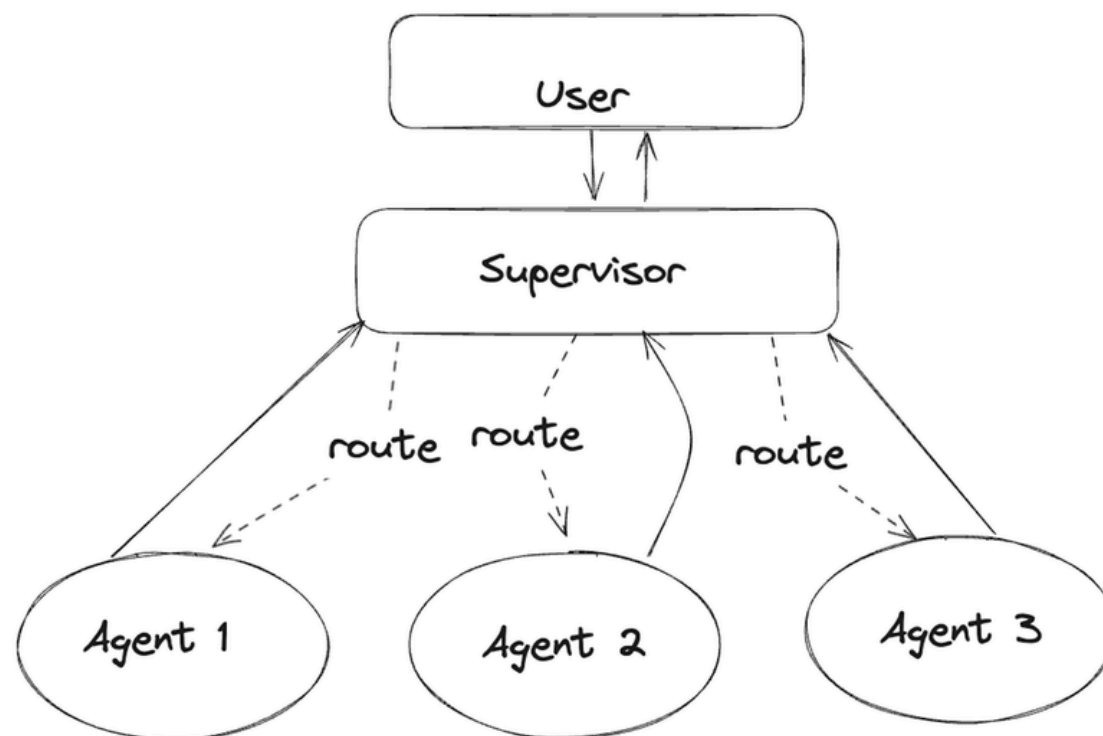
MULTI AGENT NETWORK



Network agents refer to autonomous entities that communicate in a many-to-many fashion without a hierarchical structure. This architecture enables agents to collaborate by sharing information and delegating tasks among themselves, enhancing the system's ability to handle complex or multifaceted tasks



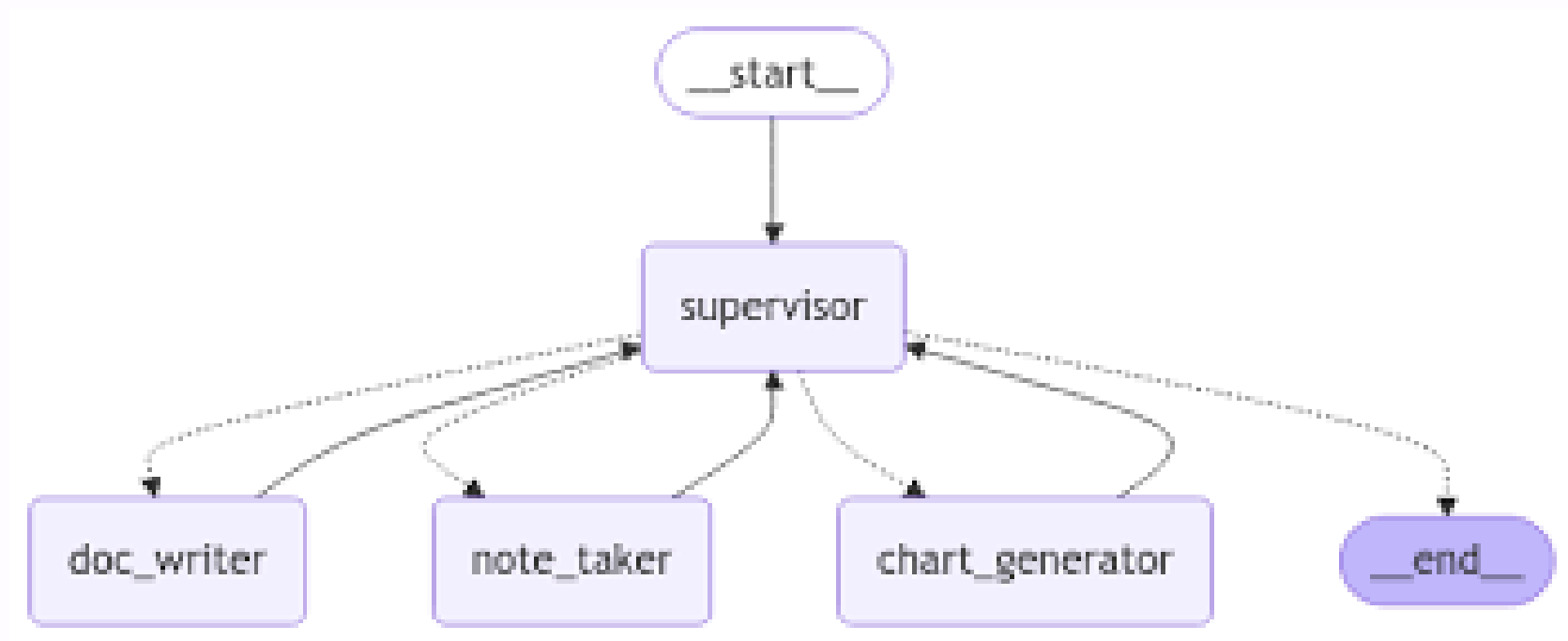
SUPERVISOR AGENT



Supervisor Agent serves as a central controller that manages and coordinates specialized agents. This agent determines which tasks should be assigned to which agents, ensuring efficient workflow and task distribution. The Supervisor Agent makes decisions on which agent should be called next, orchestrating the overall process.



HIERARCHICAL AGENTS



Hierarchical Agents are organized in a tiered structure where multiple supervisors manage their respective teams, all coordinated by a top-level supervisor. This architecture allows for efficient task delegation and coordination across various levels of specialization. Each supervisor oversees a subset of agents, ensuring that tasks are executed effectively within their domain, while the top-level coordinator ensures alignment with overarching objectives.



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