AI Agents

An AI agent is a software system that interacts with its environment, collects data, and performs tasks to achieve specific goals autonomously, often utilizing AI models for reasoning and action. Its memory allows it to store and recall information—including past interactions and context—which enables it to adapt, learn, and make better decisions over time.

AI agents use a range of tools, which are typically functions or external resources (APIs, devices, or applications) that they can call upon to gather data, process it, or take action as needed. These tools allow agents to access external systems and enhance the agent's problem-solving capabilities.

Agentic AI refers to artificial intelligence systems designed to operate autonomously, adapt in real-time, and solve complex, multi-step problems based on high-level objectives. Unlike traditional or purely generative AI, agentic AI combines reasoning, planning, memory, and tool use to proactively achieve goals, often coordinating multiple agents as part of complex workflows.

What is an AI Agent?

AI agents are autonomous software systems that interact with their environment, sense data, reason about tasks, and perform actions based on those observations to meet specific goals.

They use a core language model for interpretation and reasoning, a planning module for decomposing goals, and a memory system for storing and recalling information.

Memory for AI Agents

Memory in AI agents can be short-term (current context), long-term (accumulated knowledge and historical interactions), episodic (specific events), or consensus (shared across agents).

Memory functions enable agents to keep context, personalize decisions, and improve performance over time by learning from experience.

Tools of AI Agents

Tools are external resources (APIs, databases, devices) that agents can access to retrieve data, perform computations, or take real-world actions.

Examples include search tools, web APIs, CRM platforms, or task automation functions. The agent coordinates which tools to use depending on the task at hand.

What is Agentic AI?

Agentic AI is a paradigm where AI systems act autonomously, use memory and planning, make decisions, and execute actions to pursue complex, multi-step objectives without continuous human oversight.

It differs from generative AI by being proactive and goal-oriented. While generative AI generates content reactively, agentic AI coordinates multiple agents across workflows, using generative AI as just one of its tools.

Real-world examples include autonomous customer support, intelligent workflow automation, and adaptive business process management.