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AGENTIC ARTIFICIAL INTELLIGENCE

New Era New Technology



Generative AI

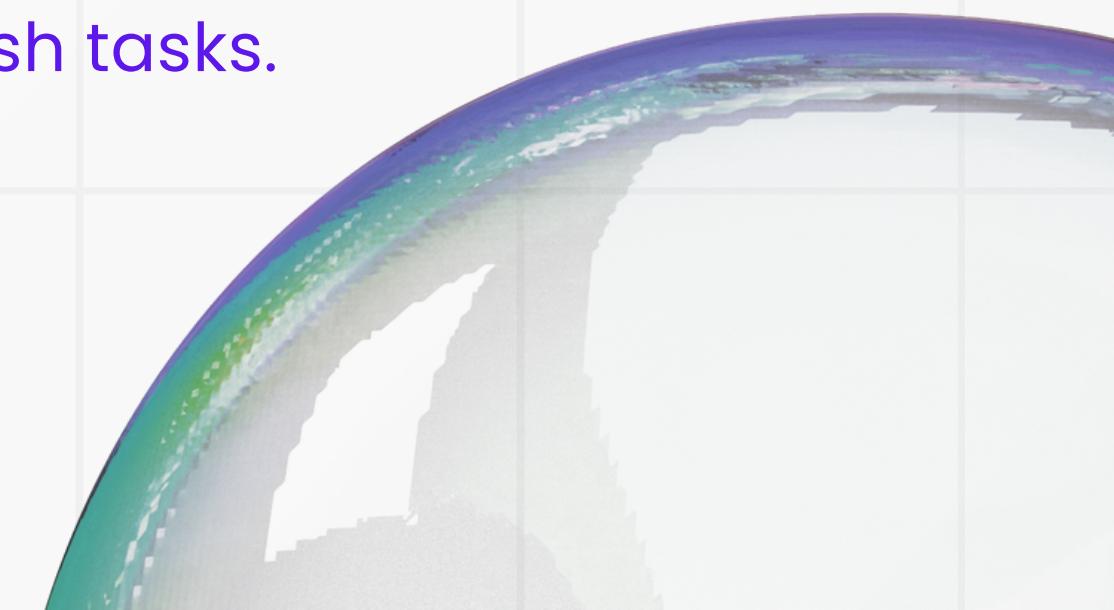
Generative AI is a type of artificial intelligence that creates new content such as text, images, audio, videos, or code.

These AI models are trained on large datasets to learn patterns and then generate original content based on those patterns.

Agentic AI

Agentic AI refers to AI systems that can act autonomously, make decisions, perform multiple tasks, and adjust their actions based on goals — essentially functioning as “agents.”

Unlike generative AI, agentic AI interacts with its environment, plans multi-step actions, solves problems, and can use tools or APIs to accomplish tasks.



LLM

LLMs are brains behind generative AI. LLM stands for large language model, basically transformer-based model trained on large text. It predicts the next token in a sequence.

It takes text input (like a question or sentence) and uses patterns learned during training to generate relevant and coherent text output.

Swarm

Swarm started as an experiment to manage multiple AI agents running simultaneously and to coordinate their tasks efficiently. Each agent in the swarm knows:

1. Agent: What specific task it needs to perform
2. Handoff: When and how to transfer control or information to another agent for the next step



OpenAI Agents SDK

OpenAI Agents SDK is a software development kit provided by OpenAI that allows developers to build, run, and manage multiple AI agents that can autonomously perform tasks, collaborate, and communicate with each other. It is designed to help create complex AI workflows where several specialized agents work together toward a common goal.

Key Features of OpenAI Agents SDK :

- Multi-Agent Orchestration: Manage many agents with different roles working together smoothly.
- Agent Instructions: Customize each agent's behavior and role clearly.
- Tool & API Integration: Agents can use external APIs and tools beyond text generation.
- Handoffs: Pass tasks seamlessly between agents for complex workflows.
- Tracing & Debugging: Monitor agent actions and debug easily with built-in tools.
- Error Handling: Automatically detect and fix errors during execution.
- Runner Interface: Run agents sync or async and manage their lifecycle efficiently.
- Extensibility: Add new tools, agents, or custom features easily.