



Advanced Generative & Agentic AI

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Generative AI

Generative AI refers to a class of artificial intelligence systems designed to create new content such as

- Text
- Images
- Audio
- Video
- Code

based on patterns learned from existing data.

Applications:

- Text generation (e.g., ChatGPT, Gemini for writing and conversation)
- Image and art creation (e.g., DALL·E, Midjourney)
- Music and video synthesis
- Code generation (e.g., GitHub Copilot)



AI Agents

- An AI Agent is an artificial intelligence system designed not just to generate information, but to **take actions** autonomously in order to achieve specific goals.
- Traditional **Generative AI**, which focuses on creating content such as text, images, or code, an **AI Agent** can perceive its environment, make decisions, and execute tasks.
- **Integration with Tools & APIs:** Often connects with external systems (like calendars, browsers, CRMs, or databases) to perform practical functions.

In Simple Terms:

- **Generative AI** - creates.
- **AI Agents** – act also.

Example:

- A **Generative AI** can write an email draft for you.
- An **AI Agent** can go further — write the email and send it to the right recipients at the right time after checking your schedule and context.

Agentic AI

Agentic AI systems are built from one or more AI agents that use **Generative AI** (like LLMs i.e. Large Language Models) for intelligence to **understand a complex goal**, strategically **plan the next move**, and then **act on that plan** by operating external tools.

Feature	Generative AI (GenAI)	AI Agent	Agentic AI
Core Function	Create new content (text, image, code).	Act on a goal by taking steps & using tools.	The philosophy/system that enables AI Agents to work autonomously.
Output	A single piece of content (e.g., an article).	A completed task or a series of actions (e.g., a trip booked).	An autonomous, goal-oriented system. (e.g., A full travel-planning system that understands user preferences, finds flights, books hotels, and creates an itinerary.)
Autonomy	Low (Reactive, requires a prompt for each output).	High (Can plan, execute multi-step processes, and use tools).	Highest (The system allows agents to operate and coordinate autonomously).
Analogy	The Engine/Creative Workshop (e.g., the LLM itself).	The Smart Worker that uses the engine and tools.	The Autonomous Manager that designs and orchestrates the workers/Agents.



Thank you