

01 – Research Task: Understanding Agentic AI

◆ What Are LLMs (Large Language Models)?

LLMs are powerful AI models that are trained using massive amounts of text data like books, websites, and articles. Their job is to understand human language and respond in a way that feels natural.

They work using transformer architecture, which helps them quickly analyze and generate language. When you type something (a prompt), they predict the next word based on everything they've learned.

Examples: GPT-4 (OpenAI), Gemini (Google), Claude (Anthropic)

◆ What Is Generative AI?



Generative AI means any AI that can create new content. This includes:

✍️ Text (like essays or stories)

🖼️ Images (like DALL-E art)

🎵 Audio (like music or voice)

🎥 Videos (like deepfakes or animations)

Generative AI is built using LLMs or other models (like diffusion models for images). It's mostly used for creative or content-based tasks.

What Is Agentic AI?

Agentic AI is more advanced than Generative AI. Instead of just creating content, it can think, decide, and act.

Agentic AI systems can:

- Make plans

- Use tools like web search or calendars

- Complete tasks step-by-step

- Learn from outcomes

- They follow a smart cycle:

- Observe → Plan → Act → Learn

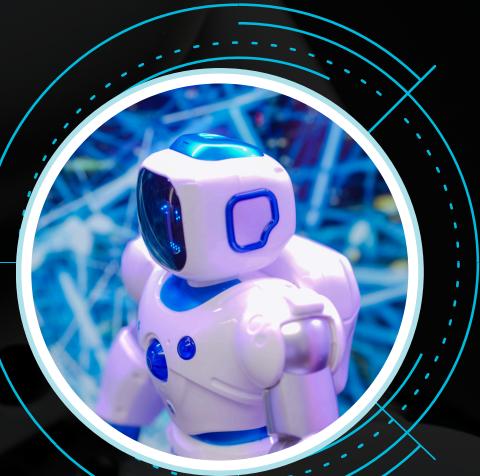
Example: An AI that books a meeting, sends emails, and updates your calendar—all by itself.



Key Features:

- 💡 Decision-making: The AI chooses the best course of action.
- 🤖 Action-taking: It performs tasks like sending emails or retrieving data.
- ⌚ Autonomous loop: Follows a loop of Observe → Plan → Act → Learn.

Agentic AI doesn't just generate—it acts.



Generative AI vs Agentic AI



Feature Generative AI

Function

Creates content
(e.g., text, images, code)

Example

GPT-4 writing an article
or generating art

Autonomy

Limited (reactive,
input-driven)

AI Agentic

Takes actions and
makes decisions

AI agent booking a flight or
sending follow-up emails

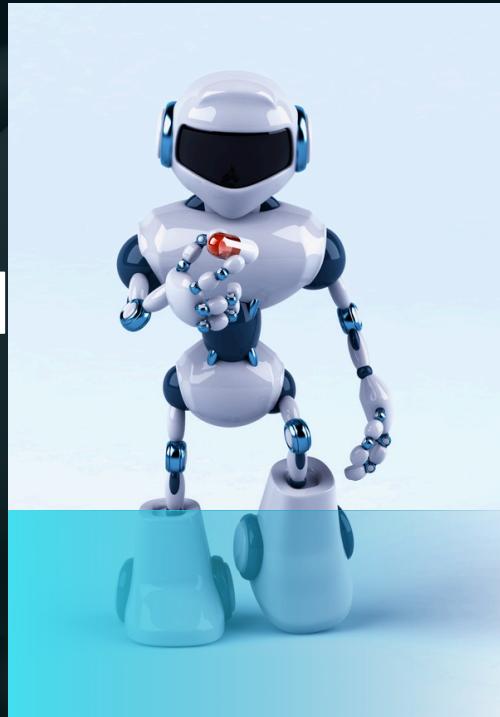
High (self-directed,
goal-driven, proactive)

OpenAI's Agents SDK

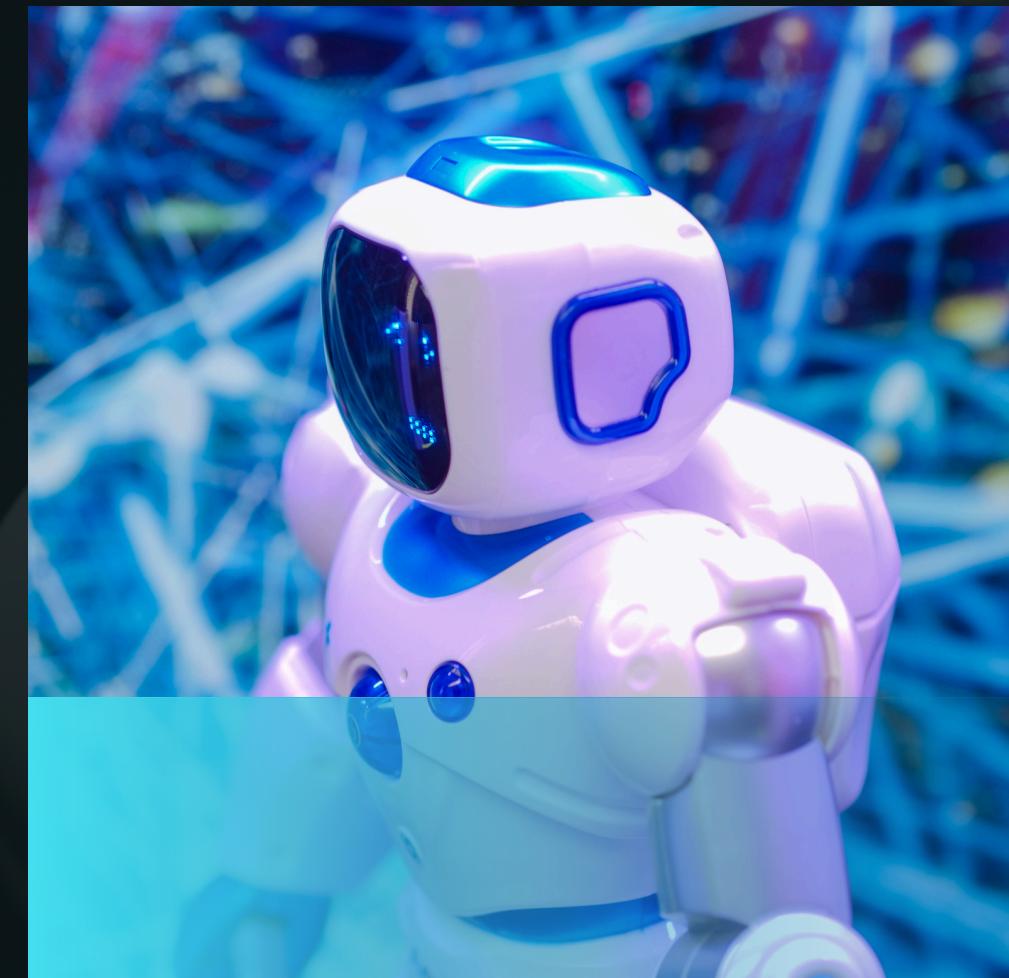
◆ What Is It?



The OpenAI Agents SDK is a toolkit that helps developers build AI agents using powerful LLMs. These agents can interact with external tools, APIs, and data to complete real-world, multi-step tasks.



◆ Why Are We Using It?



⚙️ Simple Integration: Easily connects to apps and APIs.

🧠 Handles Complexity: Useful for workflows like research, data analysis, or customer service.

♻️ Reusable & Scalable: Suitable for both small-scale bots and enterprise-level agents.

◆ Key Benefits:



- ✓ Time-Saving: Automates repetitive work.
- ✓ Smart Automation: AI acts independently using reasoning and planning.
- ✓ Customizable: Flexible for different use cases (e.g., customer support, data pipelines, task automation).

Conclusion

LLMs generate human-like text using deep learning.

Generative AI creates content like text, images, and audio.

Agentic AI goes beyond by taking autonomous actions to complete tasks.

OpenAI's Agents SDK is a powerful framework to create intelligent agents that can perform real-world tasks, reason independently, and automate workflows.

THANK YOU!

Thank you for joining us

Submitted by: Asma Yaseen

RollNo:00436743

Date: 1-june-2025

slot: Tuesday[7:00pm to 10:00pm]