OPEN AI

OpenAI is a leading artificial intelligence research organization that focuses on developing and promoting friendly AI for the benefit of humanity.
One of their projects is the OpenAI Agents SDK, a lightweight and powerful framework for building multi-agent workflows.

Key Features of OpenAI Agents SDK:

- Agents: LLMs configured with instructions, tools, guardrails, and handoffs that can perform complex tasks.
- Handoffs: A specialized tool call used for transferring control between agents, enabling multi-agent collaboration.
- Guardrails: Configurable safety checks for input and output validation to ensure agents operate within defined boundaries.
- Tracing: Built-in tracking of agent runs, allowing for visualization, debugging, and optimization of workflows.

The SDK is designed to be highly flexible, allowing developers to model a wide range of LLM workflows, from deterministic flows to iterative loops. It's also provider-agnostic, supporting the OpenAI Responses and Chat Completions APIs, as well as 100+ other LLMs [1].

Example Use Cases:

- Building a simple assistant agent that responds to user queries
- Creating a multi-agent workflow for language translation and response generation
- Developing an agent that uses function tools to retrieve weather information or perform other tasks

To get started with the OpenAI Agents SDK, you can install it using pip: pip install openai-agents. Then, you can define an agent and run it using the Runner class, as shown in the "Hello World" example [2] [1].

```
from agents import Agent, Runner

agent = Agent(
    name="Assistant",
    instructions="You are a helpful assistant"
)

result = Runner.run_sync(
    agent,
    "Write a haiku about recursion in programming."
)

print(result.final_output)
```

Code Explanation:
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1. Importing necessary classes: The code imports Agent and Runner classes from the agents module.
2. Defining an Agent: An Agent object is created with a name ("Assistant") and instructions ("You are a helpful assistant").
3. Running the Agent: The Runner class's run_sync method is used to run the agent with a specific task ("Write a haiku about recursion in programming.").
4. Printing the result: The final output generated by the agent is printed to the console.

In simple terms:

- An assistant agent is created with specific instructions.
- The agent is tasked with writing a haiku about recursion in programming.
- The agent generates a response, which is then printed to the console.

This code demonstrates a basic example of using the OpenAI Agents SDK to create and run an agent with a specific task.