**Sidebar: asyncio python lib**

All the frameworks use it for light parallel computing when on agent is stuck on some operation like I/O waiting. It all runs in the same thread context.

“async” declares a function as an object that can be called and waited for a result, otherwise a call to it will return an object. This is object is called coroutine. These are special functions that can be paused and resumed. Calling a coroutine doesn’t start immediately. It returns a coroutine object.  
To actually run it, you need to call “await” on it. Which schedules it to execution within an event loop.  
While a coroutine is waiting (i.e for I/O operation), the event loop can run other coroutines.

**OpenAI Agents SDK**

Lightweight and flexible

Stays out of the way

Makes common activities easy

Ed’s favorite 😊

Terminology:  
Agents represent LLMs

Handoffs represents interactions.

Guardrails represents controls.

Three steps:  
1. Create an instance of Agent  
2. Use “with trace()” to track the agent  
3. Call runner.run() to run the agent

**Vibe coding**

Good vibes – prompt well – ask for short answers and latest APIs for today’s date

Vibe but verify – ask 2 LLMs the same question

Step up the vibe – ask to break down your request into independently testable steps.

Vibe and validate – ask an LLM and then get another LLM to check

Vibe with variety – ask for 3 solutions for the same problem, pick the best.

Day2:

In the project we build:

A workflow of Agent calls   
An agent that can use a Tool  
An agent that can call on another agent using Tools and Handoffs

Day3:  
Recap – we have 3 types of interactions

Tools – directly calling functions  
Tools as Agents   
Handoffs

We now add:  
Other models than OpenAI  
Structured outputs  
Guardrails  
  
Day4:   
Essential use case – deep research using Tools, Structured outputs and Hosted Tools

**The big challenge**

As in OpenAI agent that needs to do a deep search (a mode to lit) that asks questions before the research.

Start by coming up with 3 clarifying questions based on the query.   
Tune the searches taking into account the clarifications   
Make the manager an agent which controls the other agents as tools and handoffs

You can add also another agent to validate the results of the research.