🔧 1. Function Tool

Yeh sabse common aur recommended hota hai:

```
from agents import function_tool

@function_tool
async def get_weather(city: str) -> str:
    return f"The weather in {city} is sunny"
```

◆ Kab use hota hai?

- Jab aap chahte ho ke **LLM kisi async Python function ko call kare**.
- Live weather, currency rate, news, database se data lena etc.

🌐 2. Hosted Tool (External APIs ya cloud tools ko integrate karta hai)

Hosted Tools woh hote hain jo kisi **external service (API)** ya **plugin** ko connect karte hain, takay **LLM us data ko real-time main use kar sake**.
Ye tools already kisi server par "hosted" hote hain — is liye inhe **hosted tools** kehte hain.
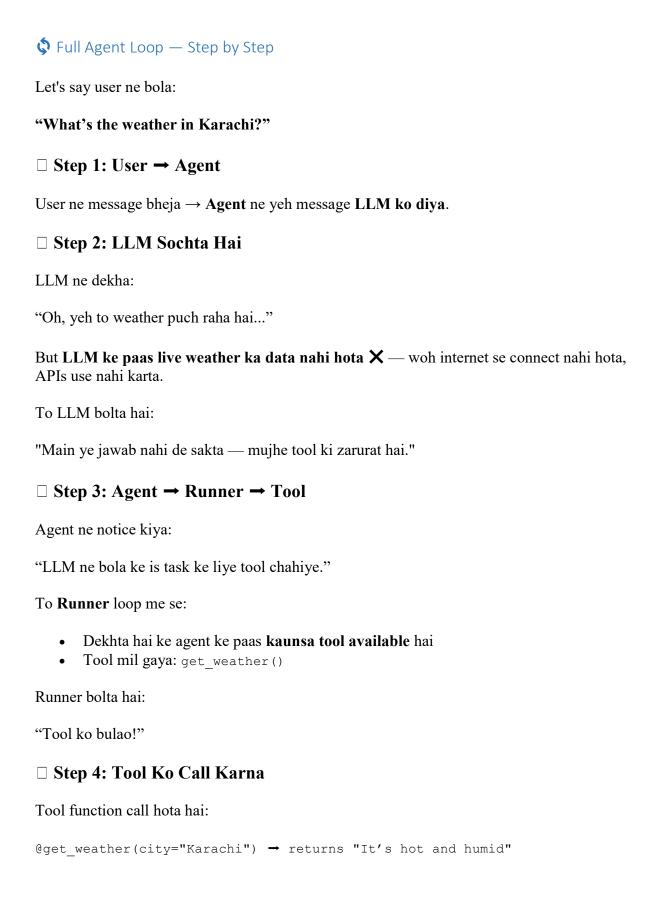
- **Kya hota hai?** Aap kisi external web service (e.g., weather API, Google search, etc.) ko access karte ho.
- **Example:** Agar aap OpenWeatherMap API se weather mangwa rahe ho, toh woh hosted tool hai.
- **Use kab hota hai?** Jab LLM se internet ya external world ke real-time data lena ho

3. Agent as a Tool (Ek agent dusre agent ko call karta hai)

- **Kya hota hai?** Ek `Agent` doosre `Agent` ko as a helper use karta hai — jaise `triage_agent` jo decide karta hai `french_agent` ya `spanish_agent` ko kaam dena hai.
- **Example Code:**

```
python
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french_agent = Agent(...)
triage_agent = Agent(..., handoffs=[french_agent])
```

- **Use kab hota hai?** Jab complex workflow ho ya alag alag experts (agents) ho specific tasks ke liye.

🔄 Full Agent Loop — Step by Step

Let's say user ne bola:

"What's the weather in Karachi?"

☐ Step 1: User ➡ Agent

User ne message bheja → **Agent** ne yeh message **LLM ko diya**.

☐ Step 2: LLM Sochta Hai

LLM ne dekha:

"Oh, yeh to weather puch raha hai..."

But **LLM ke paas live weather ka data nahi hota ✗** — woh internet se connect nahi hota, APIs use nahi karta.

To LLM bolta hai:

"Main ye jawab nahi de sakta — mujhe tool ki zarurat hai."

☐ Step 3: Agent ➡ Runner ➡ Tool

Agent ne notice kiya:

"LLM ne bola ke is task ke liye tool chahiye."

To **Runner** loop me se:

- Dekhta hai ke agent ke paas **kaunsa tool available** hai
- Tool mil gaya: `get_weather()`

Runner bolta hai:

"Tool ko bulao!"

☐ Step 4: Tool Ko Call Karna

Tool function call hota hai:

```
@get_weather(city="Karachi") ➡ returns "It's hot and humid"
```

☐ Step 5: Tool ➡ Agent ➡ LLM

Tool ne data bheja back → Agent ne LLM ko diya:

"Here's the weather info."

LLM ne ab final response likha:

"The weather in Karachi is hot and humid."

☐ Step 6: Final Output

Agent ne final output user ko bhej diya!

✅ Bonus Tip:

Jab LLM ke paas **knowledge hoti hai** (e.g., *"Who is the founder of Pakistan?"*) — to wo directly jawab deta hai.

Jab knowledge **bahar se chahiye hoti hai** (e.g., *live weather*, *stock price*, *news*) — to **LLM bolta hai tool call karo**.

(question kia user ny?? Llm ny dekha main is ka jwb nhi dy skta is ky liye kisi tool ki zrort hy llm apna response dy ga runner ko runner jis ko tm agentloop khty ho .agent phir sy apny ander check kry gga ky os ky pas koi tool hay (lllm ny kha main jwb nhi day skta is ny runner ko kha ky tool ko call kro phir hmra agent tool ko call kry ga)