**📌 Context in AI (Gemini, LLMs, Agents)**

**1. Context ka Matlab**

Context ka matlab hai **wo sab maloomat jo model ko di jati hain taki wo tumhara sawaal sahi samajh sake**.

👉 Example:  
Agar tum likho:

|  |
| --- |
| **Tell me his age.** |

Model confuse ho jayega ke *his* ka matlab kiska hai.  
Lekin agar context me likha ho:

|  |
| --- |
| **Ali is 25 years old.**  **Tell me his age.** |

To model samajh jaayega ke *his = Ali*.

**2. Context Sources**

AI ke liye context do jagah se aa sakta hai:

* **User Input se**  
  (tumhara prompt, jaise: "Define Newton’s third law").
* **System / Agent se**  
  (instructions, previous messages, ya guardrails jo tumne set kiye).

**📌 Types of Context in AI Agents**

**🔹 1. Local Context**

* Ye **ek agent** ke andar hota hai.
* Sirf usi interaction ke liye kaam karta hai.
* Agar tum ek agent ko input do, to uska jawab sirf usi input + uske instructions par depend karega.

|  |
| --- |
| **agent = Agent(**  **name="Math Assistant",**  **instructions="Solve only math problems.",**  **model=model**  **)** |

Yahan agent ka **local context** hai → "Solve only math problems." + tumhara input

**🔹 2. Global / Agent System Context:**

* Ye context **saray agents ya pura system** share karte hain.
* Isme wo maloomat hoti hain jo **har agent ko dikhani hoti hai** ya bar‑bar use karni

💡 Tum isko aise samajh sakti ho:

* **Local Context** = ek kamray ke andar ki baat
* **Global Context** = pura ghar ki maloomat jo sabko maloom hai