

★ 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