Gemini 3.0

Installation & Access:

Gemini 3.0 (khaas tor par Gemini 3 Pro model) ko istemaal karne ke kai tareeqe hain:

Gemini App/Search mein AI Mode: Aap isay barah-e-raast Gemini App ya Google Search mein AI Mode ke zariye istemaal kar saktay hain. Google AI Pro ya Ultra subscribers ko behtar access haasil hai.Kaise: Gemini App mein model selector se "Thinking" ko muntakhab karen.

Developer APIs ke zariye: Developers Google AI Studio, Vertex AI, ya Gemini CLI ke zariye gemini-3-pro-preview model istemaal kar saktay hain.

Installation ka tareeqa (CLI ke liye):

npm install -g @google/gemini-cli

install gemini-cli

1: (Improvements) Laaye Gaye Hain Gemini 3.0 mein?

Gemini 3.0 bahut zyada smart ho gaya hai.

Zyaada Intelligence aur Reasoning (More Intelligence and Reasoning):

- o **Matlab:** Yeh purane models se har test mein behtar hai. Yeh ab bohot mushkil sawalon ke jawab bhi de sakta hai, jinhe solve karne ke liye pehle bahut saari steps (qadam) ki zaroorat hoti thi.
- o **Example:** Agar aap isko ek lambi research paper do aur bolo ki iske main points aur conclusion do, toh yeh bohot achhe se nikal dega.

Behtar Coding (Better Coding):

- o **Matlab:** Yeh ek developer assistant ki tarah kaam karta hai, jo bade code projects ko bhi samajh aur theek kar sakta hai.
- o **Example:** Aap isko bolo, "Meri website ka login button gold colour ka kar do aur uska code likh do," toh yeh khud se code likh kar dega.

2: Gemini 3.0 Coding aur Automation Workflows ko kaise behtar karta hai?

Yeh coding ko aasan aur automatic bana deta hai.

Autonomous Coding Agents:

- o **Matlab:** Yeh ek virtual junior developer ki tarah kaam karta hai. Yeh khud se plan banaata hai, files check karta hai, aur task poora karta hai.
- o **Example:** Aap isko bolo, "Iss app ke saare security bugs theek kar do." Toh yeh **khud se har file dekhega, bugs dhundega, theek karega, aur aapko result bata dega.**

- o **Matlab:** Yeh pure-ke-pure codebases (bohot saari files) ko ek saath samajh sakta hai, jisse yeh bade projects mein bhi behtar kaam karta hai.
- o **Example:** Agar aapka code 100 files mein hai, aur aapko 50 files mein ek chhota change karna hai, toh Gemini 3.0 uss poore project ko samajh kar change kar dega.

3: Gemini 3.0 Multimodal Understanding ko kaise behtar karta hai?

"Multimodal" ka matlab hai ki yeh sirf text hi nahi, balki images, videos, aur audio ko bhi samajh sakta hai.

Deep Visual and Spatial Reasoning:

- o **Matlab:** Yeh ab photos aur videos mein cheezon ko zyaada gehrai se samajh sakta hai, jese ki cheezein kahaan rakhi hain, unka aapas mein kya connection hai, aur video mein kya ho raha hai.
- o **Example:**
  - Visual Reasoning: Aap isko ek picture do jismein teen log aapas mein baat kar rahe hain, aur yeh bata dega ki kaun sabse zyada khush lag raha hai ya kaun kisko dekh raha hai.
  - Video Reasoning: Aap isko ek lambi cooking video do, aur yeh bata dega ki salt kab add hua ya recipe ki step-by-step list bana dega.

4: Gemini 3.0 ke saath diye gaye koi bhi do Developer Tools ke naam aur Example.

Do sabse important naye tools yeh hain:

1. Google Antigravity:

- o **Kya Hai:** Yeh ek naya coding platform hai. Socho yeh ek advanced editor hai jahan AI agents aapke liye coding karte hain.
- o **Example:** Aap is platform mein simply likho: "Ek aisi website banao jo users ko latest stock prices dikhaaye." Antigravity ka agent khud se files banaana, code likhna, aur browser mein test karna shuru kar dega.

2. Gemini CLI 3.0 (Command Line Interface):

- o **Kya Hai:** Yeh ek tool hai jise aap terminal (computer screen jahan sirf text hota hai) mein use karte hain.
- o **Example:** Aapko koi mushkil computer command yaad nahi hai? Aap simply English mein likho: "Pichle hafte ki saari files dhundho jinke naam mein 'report' ho aur unko ek naye folder mein copy kar do." Gemini CLI 3.0 aapki baat samajh kar woh mushkil command khud se run kar dega.

Deep Think Mode Kya Hai?

Deep Think Mode bilkul aise hai jaise Gemini ko kisi mushkil sawaal ya project par zyada time lekar gehrai se sochne (to think deeply) ki ijaazat (permission) mil jaati hai.

Yeh Kaise Kaam Karta Hai (How it Works):

1. **Sawal Milna (Receiving the Query):** Jab aap Gemini ko koi bahut mushkil sawaal dete hain (jahan koi seedha jawab nahi hota).

2. **Sochna (Thinking Phase):** Model "Deep Think Mode" mein jaata hai. Iss phase mein, yeh kai internal steps leta hai—jaise:
    - Sawal ko chote-chote hisson mein todna (breaking the problem down).
    - Hissaron ko alag-alag hal karna.
    - Pichle steps ke results ko check karna aur ghaltiyon ko theek karna (self-correction).
3. **Jawab Dena (Providing the Answer):** Jab model poora process kar leta hai, tab woh aapko ek aakhri (final) aur bahut hi sahi aur complete jawab deta hai.

💡 Ek Asaan Example:

- **Aam Sawal (Normal Question):** "Pakistan ka capital kya hai?"
    - Jawab: Islamabad (Seedha jawab, Deep Think ki zaroorat nahi).
- **Mushkil Sawal (Deep Think Mode Triggered):** "Agar duniya ki sabhi gaadiyan (cars) electric ho jaayen aur unki battery ko recharge karne ke liye solar energy ka hi istemal ho, toh agle 10 saalon mein global temperature par kya asar padega? Saath mein economic challenges bhi batao."
    - **Gemini Deep Think Mode mein:**
        1. Step 1: Electricity demand ka hisaab lagao.
        2. Step 2: Solar power plants lagane ki cost aur time dekho.
        3. Step 3: Carbon emissions mein kami ka hisaab lagao aur uska temperature par asar dekho.
        4. Step 4: Oil companies aur battery manufacturing industries par economic asar dekho.
    - **Result:** Aapko ek lamba, detailed, aur har pehlu (aspect) ko cover karta hua jawab milta hai.

Instructor: Sir Hamzah Syed