TASK 03

30 DAYS CHALLENGE

FRIDAY BATCH (6:00 PM to 9:00 PM)

Submitted by:

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PART A — Research Questions

1. What new improvements were introduced in Gemini 3.0?

Gemini 3.0 is built on a foundation of state-of-art reasoning. It is designed to perform agentic workflows, autonomous coding and complex multimodal tasks.

It uses dynamic thinking for reasoning. The new improvements introduced in Gemini 3.0 includes;

- Thinking level parameter control the depth of model internal reasoning process. The higher the thinking level the depth of reasoning maximizes and increases the accuracy of output but increases the latency and cost of model, by default thinking level is high in Gemini 3.0.
- Media resolution.
- The temperature sets 1.0 by default that optimized its reasoning capabilities.
- Thought signatures.
- Structured outputs with tools by using built-in tools, including grounding with Google search, URL Context and Code execution.
- Image generation in Gemini 3.0 uses reasoning to think and retrieve real time data. It uses high resolutions 2K and 4K for image generation.

2. How does Gemini 3.0 improve coding & automation workflows?

- Gemini 3.0 has stronger reasoning with Dynamic Thinking mode, enabling complex coding tasks, debugging, and workflow automation.

- The agent-first development approach in Google Antigravity IDE can write code, run tests, and validate results automatically.

- Gemini 3.0 is more coherent in its reasoning due to the Signatures feature, which maintains context across the project.

- Its high multimodal fidelity lets it accurately understand code, UI screens, images, and interactions in real time, enabling smarter automation workflows and more reliable end-to-end coding assistance.

- The 1M-token long context window helps Gemini 3.0 understand entire codebases and maintain consistency across large projects.

3. How does Gemini 3.0 improve multimodal understanding?

Gemini 3.0 features significantly improved multimodal understanding by processing text, images, video, and interface layouts in a unified manner. Its enhanced spatial and visual reasoning allows it to interpret screen elements, user interactions, and visual cues with higher accuracy. Additionally, its expanded context window enables the model to maintain coherent cross-modal

understanding across large and complex inputs, resulting in more reliable analysis and decision-making.

4. Name any two developer tools introduced with Gemini 3.0.

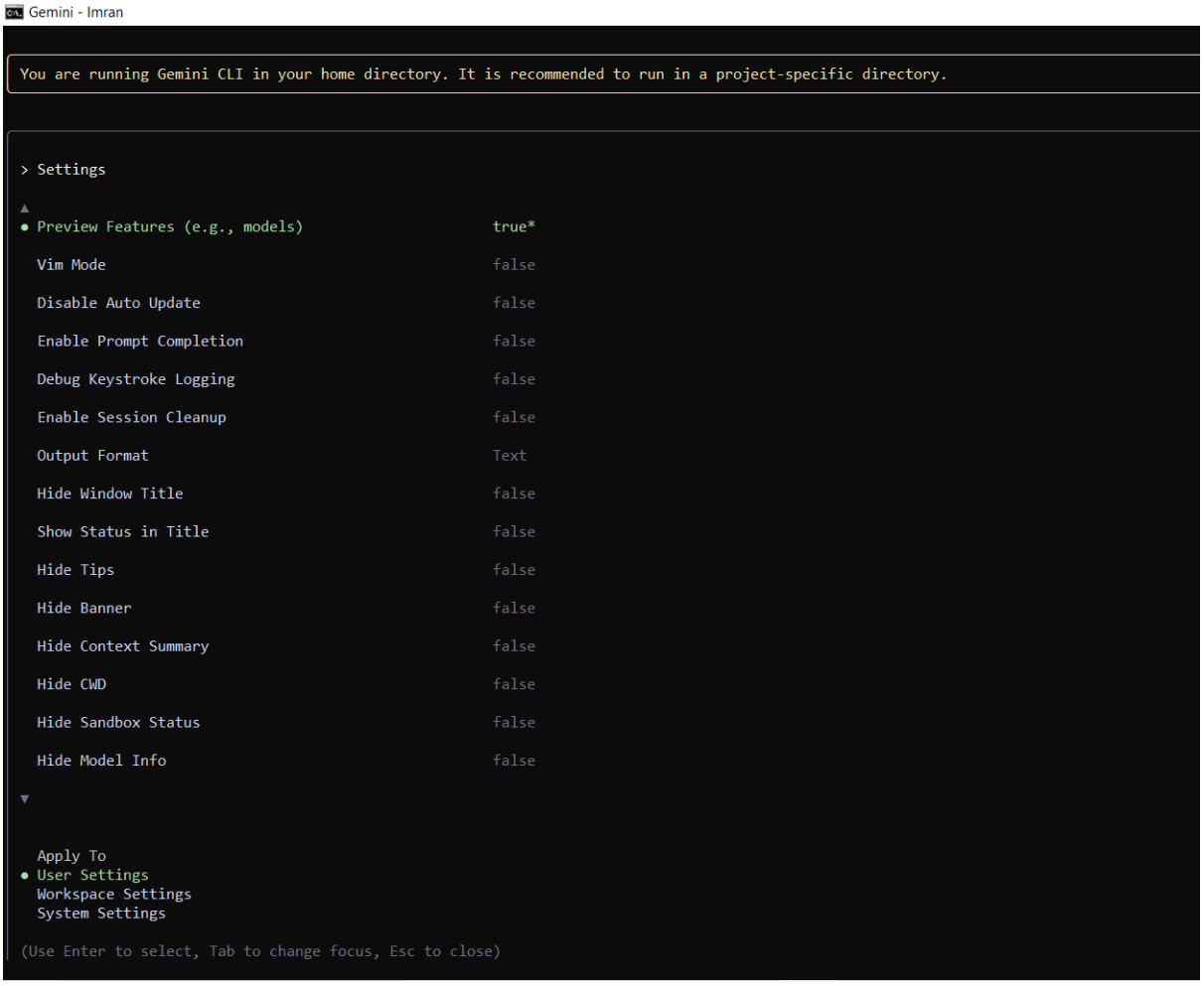
- **Gemini CLI:** Is a command-line interface that lets Gemini propose shell commands, automate system tasks, and generate multi-language code via terminal.

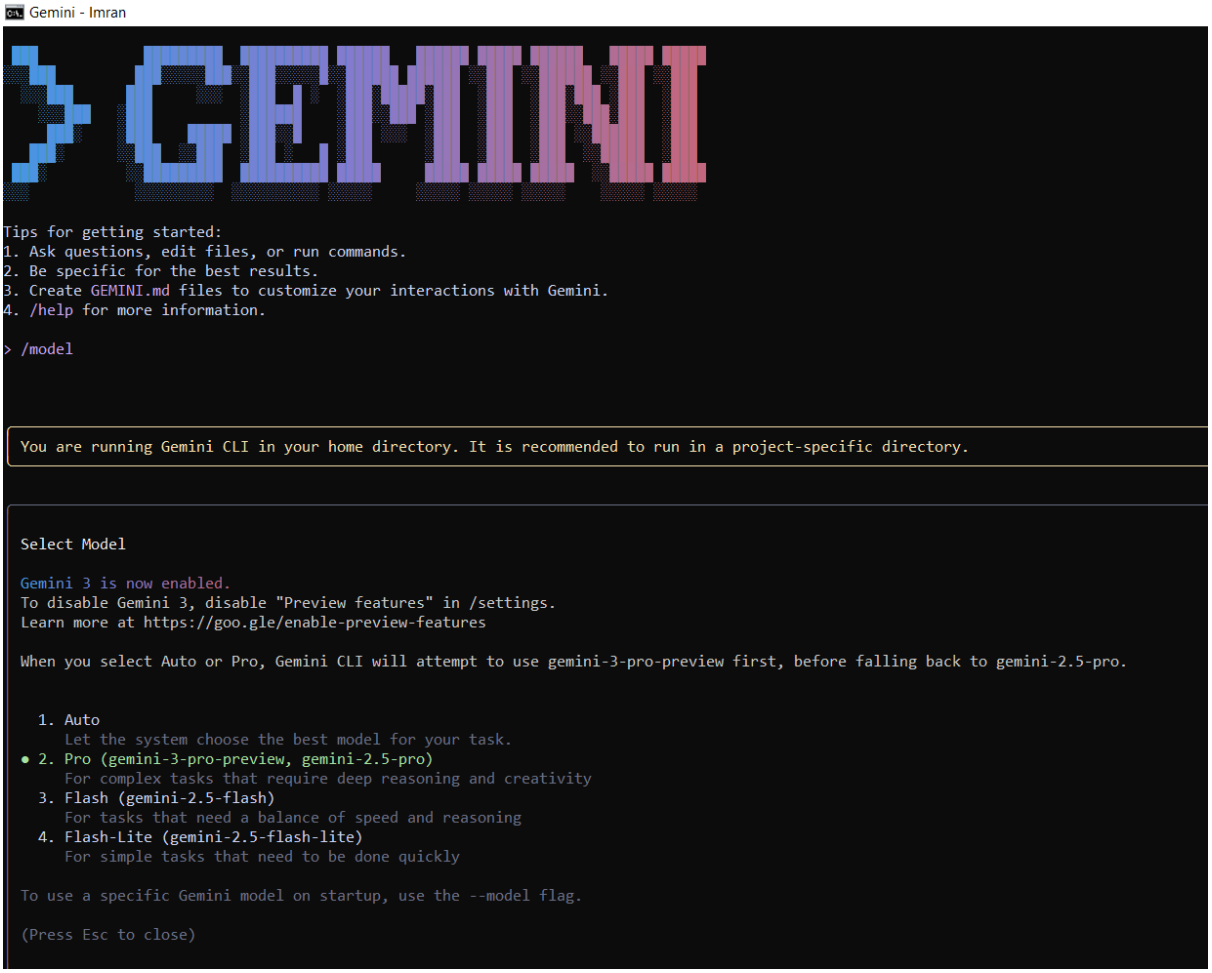
- **Google Antigravity:** An agent-first IDE where AI agents have direct access to the editor, terminal, and browser, and generate verifiable artifacts.

PART B — Practical Task - "Update Gemini 3.0 model"

Task: *Update the Gemini 3.0 model*

The Gemini 3.0 model updated by following these steps:




Gemini - Imran
GEMINI
Tips for getting started:
1. Ask questions, edit files, or run commands.
2. Be specific for the best results.
3. Create GEMINI.md files to customize your interactions with Gemini.
4. /help for more information.
> /model
You are running Gemini CLI in your home directory. It is recommended to run in a project-specific directory.
Select Model
Gemini 3 is now enabled.
To disable Gemini 3, disable "Preview features" in /settings.
Learn more at https://goo.gle/enable-preview-features
When you select Auto or Pro, Gemini CLI will attempt to use gemini-3-pro-preview first, before falling back to gemini-2.5-pro.
1. Auto
Let the system choose the best model for your task.
• 2. Pro (gemini-3-pro-preview, gemini-2.5-pro)
For complex tasks that require deep reasoning and creativity
3. Flash (gemini-2.5-flash)
For tasks that need a balance of speed and reasoning
4. Flash-Lite (gemini-2.5-flash-lite)
For simple tasks that need to be done quickly
To use a specific Gemini model on startup, use the --model flag.
(Press Esc to close)