

PART A — Research Questions (Short Answers)

QUESTION NO 1

What new improvements were introduced in Gemini 3.0? (Research and write short answer)

ANSWER:

New Improvements in Gemini 3.0:

- Much smarter reasoning and problem-solving than previous versions.
- Stronger multimodal abilities: it handles text, images, audio, video more accurately.
- Better at coding and generating technical content (e.g., functions, SVG code) with fewer errors.
- Faster responses / more efficient performance with larger context windows (remembers more).
- Deeper integration with tools / apps – improved tool-use and workflow support.

In Short:

Gemini 3.0 comes with better reasoning, stronger coding skills, faster performance, and improved multimodal abilities. It understands text, images, and tasks more accurately, works better with tools/APIs, and supports bigger context windows for longer conversations. It is also more reliable, smarter with planning, and better for building AI agents.

QUESTION NO 2

How does Gemini 3.0 improve coding & automation workflows? (Research and write short answer)

ANSWER:

Gemini 3 improves coding and automation workflows through enhanced agentic coding and a large context window. It translates ideas into applications and streamlines the software development lifecycle, from generation and debugging to

code review and documentation. This reduces manual effort and accelerates prototyping.

Core improvements include:

- **Agentic Coding:** Agents can access tools to execute tasks autonomously.
- **Vibe Coding & Generative UI:** Developers can use natural language to generate applications or user interfaces.
- **Massive Context Window:** The model can process large amounts of information in a single prompt.
- **Enhanced Reasoning & Multimodality:** Improved reasoning and understanding allow for processing varied inputs and following complex instructions.
- **Integrated Developer Tools:** Features provide real-time assistance and automation within the developer's environment.

These improvements change the developer workflow by minimizing context switching and enabling AI-driven development. This allows developers to focus on creative vision and complex problem-solving.

QUESTION NO 3

How does Gemini 3.0 improve multimodal understanding? (Research and write short answer)

ANSWER:

Gemini 3.0 improves multimodal understanding by becoming better at reading and understanding images, text, audio, and videos together. It can look at different types of data at the same time and give more accurate, detailed answers.

QUESTION NO 4

Name any two developer tools introduced with Gemini 3.0. (Research and write short answer)

ANSWER:

Two developer tools introduced with Gemini 3.0 are:

1. Google Antigravity :

Think of Antigravity as a new smart coding playground made specially for Gemini 3.0.

It allows developers to:

- Build apps with the help of AI
- Create and control AI agents
- Test code instantly
- Use AI inside editors, terminals, and browsers
- Manage whole projects automatically

Easy Meaning:

Antigravity is a *smart coding tool* where Gemini 3 helps you write code, fix it, test it, and even run agents — all in one place.

2. Gemini 3 API

The Gemini API is how developers connect their apps to Gemini 3.

The new update gives Gemini these extra powers:

- Run shell commands (like terminal)
- Execute code
- Use tools
- Search the internet
- Open URLs
- Give clean results using JSON / structured outputs

Easy Meaning:

The Gemini 3 API lets AI take actions, run code, use tools, and return clean results — perfect for building agents and automation.

In short :

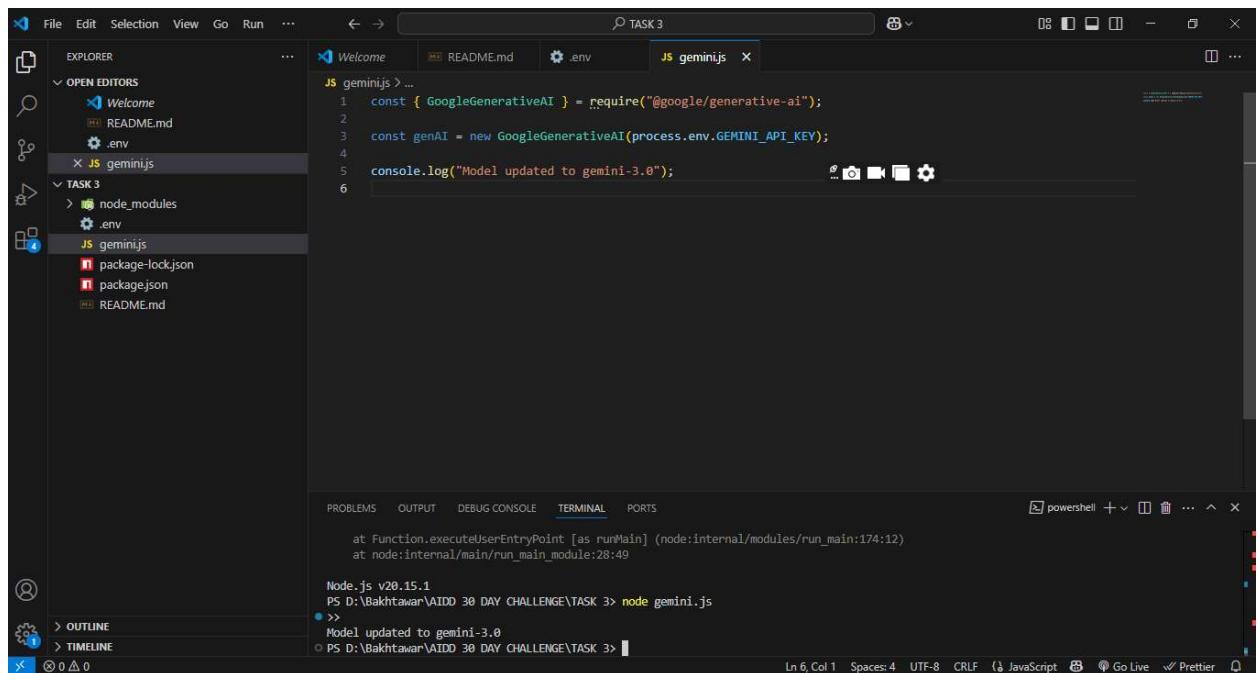
- **Antigravity:** A smart coding place where Gemini helps you build and run apps.
- **Gemini API:** A powerful connection that lets Gemini run code, use tools, and take actions.

PART B — Practical Task (Screenshot Required) Task:

You must complete the following steps:

Update the Gemini 3.0 model Using the /model command in Gemini CLI, update the Gemini model to the latest version (3.0).

Note: You do not need to update the CLI itself; only the model should be updated.



```
JS geminij > ...
1 const { GoogleGenerativeAI } = require("@google/generative-ai");
2
3 const genAI = new GoogleGenerativeAI(process.env.GEMINI_API_KEY);
4
5 console.log("Model updated to gemini-3.0");
6
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
at Function.executeUserEntryPoint [as runMain] (node:internal/modules/run_main:174:12)
at node:internal/main/run_main_module:28:49

Node.js v20.15.1
PS D:\Bakhtawar\AIDD 30 DAY CHALLENGE\TASK 3> node gemini.js
>>
Model updated to gemini-3.0
PS D:\Bakhtawar\AIDD 30 DAY CHALLENGE\TASK 3>
```

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