

30 days AIDD

Task day 2

PART A

1. Nine Pillars Understanding

Why is using AI Development Agents (like Gemini CLI) for repetitive setup tasks

better for your growth as a system architect?

Explain how the Nine Pillars of AIDD help a developer grow into an M-Shaped

Developer.

Answer

AI Development Agents (jaise Gemini CLI) repetitive aur boring setup tasks automatically kar dete hain. Isse developer ka time design aur architecture par focus hota hai.

Nine Pillars of AIDD ek integrated framework hain jo developer ko multi-domain expert banate hain.

Ek M-Shaped Developer wo hota hai jise **2-4 complementary fields** me deep knowledge hoti hai aur AI tools use karke complex systems efficiently build kar sakta hai.

2. Vibe Coding vs Specification-Driven Development

Why does Vibe Coding usually create problems after one week?

How would Specification-Driven Development prevent those problems?

Answer

Vibe Coding me developer bina planning ke sirf code likhta hai.
Ek week baad bugs, confusion aur rework zyada ho jata hai.
Specification-Driven Development (SDD) me pehle **clear specifications** likh liye jate hain aur phir code likha jata hai.
Isse mistakes kam hoti hain aur system maintainable banta hai.

3. Architecture Thinking

How does architecture-first thinking change the role of a developer in AIDD?

Explain why developers must think in layers and systems instead of raw code.

Answer

Architecture-first thinking me developer ka role sirf coding nahi, balki **system design aur layer-wise thinking** ban jata hai.
Developers ko **layers (Models → IDEs → Agents)** me sochna hota hai, jisse scalable aur maintainable software systems bante hain.

PART B

CLI Prompt

/ TERMINAL



Tips for getting started:

1. Ask questions, edit files, or run commands.
2. Be specific for the best results.
3. **/help** for more information.

Using: 1 GEMINI.md file | 1 MCP server

▶ Generate a one-paragraph specification for an email validation function. It should check “@”, a valid domain like .com or .org, and return clear error messages.

D:\Dev_...\\Task-02 (master*)

no sandbox

gemini

2 AI-Generated Specification

- ♦ The `email` validation function will accept a single string argument representing an email address. It will perform a series of checks to ensure the email's validity: first, it must contain exactly one "@" symbol; second, the domain part (after the "@") must contain at least one dot (".") and a top-level domain (TLD) of at least two characters (e.g., ".com", ".org", ".net"), ensuring the TLD is not immediately preceded or followed by a dot. If any of these conditions are not met, the function will return `False` and a specific, clear error message such as "Email must contain exactly one '@' symbol", "Invalid domain format: missing dot or TLD", or "Invalid TLD: must be at least two characters". If all checks pass, the function will return `True` and `None` for the error message.

PART C

What is the main purpose of Spec-Driven Development?

- A. Make coding faster
- B. Clear requirements before coding begins

C. Remove developers

D. Avoid documentation

B. Clear requirements before coding begins

2. What is the biggest mindset shift in AI-Driven Development?

A. Writing more code manually

B. Thinking in systems and clear instructions

C. Memorizing more syntax

D. Working without any tools

B. Thinking in systems and clear instructions

3. Biggest failure of Vibe Coding?

A. AI stops responding

B. Architecture becomes hard to extend

C. Code runs slow

D. Fewer comments written

B. Architecture becomes hard to extend

4. Main advantage of using AI CLI agents (like Gemini CLI)?
 - A. They replace the developer completely
 - B. Handle repetitive tasks so dev focuses on design & problem-solving
 - C. Make coding faster but less reliable
 - D. Make coding optional

B. Handle repetitive tasks so dev focuses on design & problem-solving

5. What defines an M-Shaped Developer?
 - A. Knows little about everything
 - B. Deep in only one field
 - C. Deep skills in multiple related domains
 - D. Works without AI tools

C. Deep skills in multiple related domains