AIDD 30-Day Challenge — Day 2 Assignment

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Complete Assignment Submission

Part A — Theory (Short Questions)

1. Nine Pillars Understanding
Using AI Development Agents for repetitive setup tasks helps a developer grow into a system architect because it frees the mind from low-level work and shifts focus toward high-level design. When routine tasks are automated, the developer naturally learns how systems connect and how tools collaborate. The Nine Pillars of AI■Driven Development guide a person into becoming an M■Shaped Developer by mixing deep knowledge with broad AI■supported capability, allowing expertise across several related domains instead of being limited to one area.

2. Vibe Coding vs Specification■Driven Development
Vibe Coding usually collapses after a week because the codebase becomes confusing, unpredictable, and hard to maintain. No structure means no long■term clarity. Specification■Driven Development prevents these issues by creating a clear blueprint before coding begins. The specification acts as a contract, reducing confusion, avoiding rewriting, and keeping the system scalable.

3. Architecture Thinking
Architecture■first thinking transforms the developer from a coder into a system designer. Instead of typing code immediately, the developer shapes the flow, connections, and behaviors of the system. Thinking in layers is necessary because modern AI■native development works like a stack: models, tools, and agents must interact cleanly. Raw code alone cannot manage this complexity.

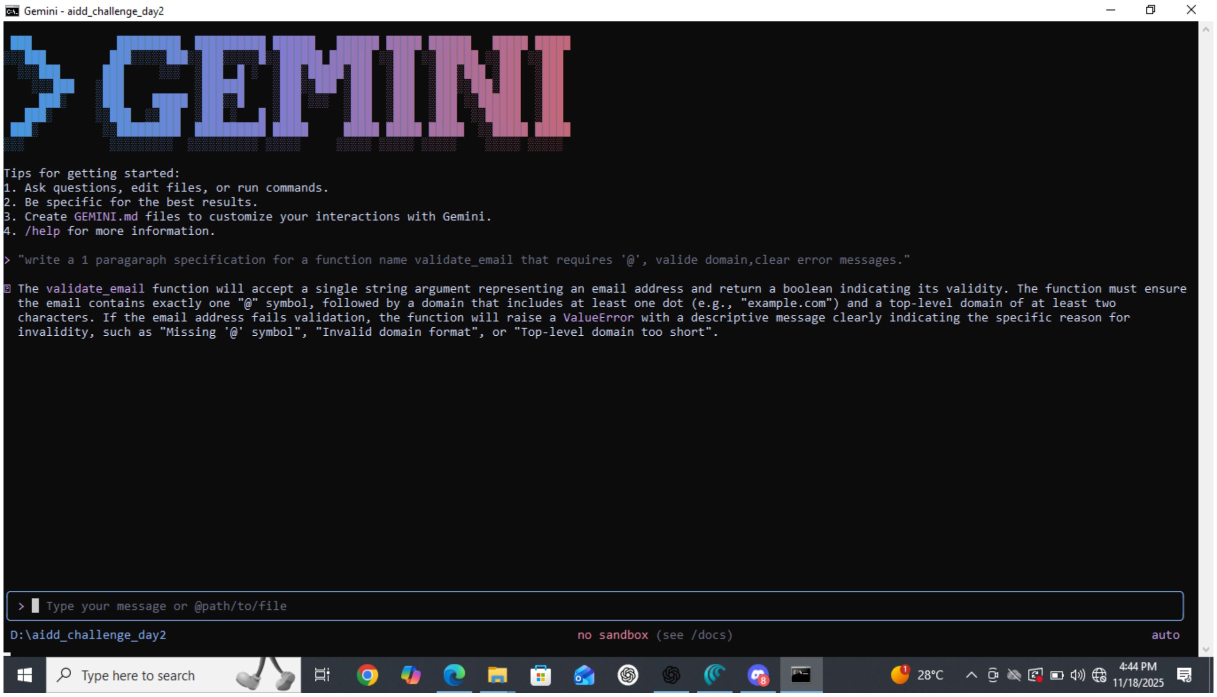
Part B — Practical Task

1) CLI Prompt Used:
Write a 1 paragraph specification for a function name validate_email that requires '@', valid domain, clear error messages.

2) One■Paragraph Specification:
The validate_email function will accept a single string argument representing an email address and return a boolean showing whether it is valid. It must check that the string contains exactly one '@' symbol followed by a properly formed domain that includes a dot, such as 'example.com', with a

top■level domain of at least two characters. If the email is invalid, the function will raise descriptive error messages explaining the specific issue, such as 'Missing @ symbol', 'Invalid domain format', or 'Top■level domain too short'.

Gemini CLI Screenshot Output:



```
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.

> "write a 1 paragaraph specification for a function name validate_email that requires '@', valide domain,clear error messages."

 The validate_email function will accept a single string argument representing an email address and return a boolean indicating its validity. The function must ensure
 the email contains exactly one "@" symbol, followed by a domain that includes at least one dot (e.g., "example.com") and a top-level domain of at least two
 characters. If the email address fails validation, the function will raise a ValueError with a descriptive message clearly indicating the specific reason for
 invalidity, such as "Missing '@' symbol", "Invalid domain format", or "Top-level domain too short".

> Type your message or @path/to/file

D:\aidd_challenge_day2                        no sandbox (see /docs)                        auto
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Part C — Multiple Choice Questions

1. Correct Answer: B
2. Correct Answer: B
3. Correct Answer: B
4. Correct Answer: B
5. Correct Answer: C

Reflection

This assignment shows how AI■Native development is changing the developer’s role. Instead of writing everything by hand, the focus now moves to designing systems, writing specifications, and working with agents that perform complex tasks. By practicing architecture■first thinking and using tools like CLI agents, developers expand into M■Shaped roles with deeper understanding and broader capability across multiple technology layers.