Prompting Lecture

What Is a Prompt?

- A prompt is the message you give to the AI.

- Clear message clear result.

- Unclear message random result.

Examples:

– "Write a motivational quote about studying."

– "Give me meal ideas for low budget."

– "Help me create a poster idea for a café."

Everyday analogy:

- Asking a friend to buy something clearer

instructions = better outcome.

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Why Clarity Matters

- AI depends on how clearly you express the request.

- Details guide the AI.

- Vague words like "nice" or "good" don't help.

Key idea:

- Good input good output.

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Anatomy of a Perfect Prompt

• A strong prompt tells the AI:

  – Who to be (Role)

  – What to do (Task)

  – Important details (Context)

  – Limits (Constraints)

  – Input data

  – Output format

  – Tone/Style

Example:

"You are a web designer. Create a landing page for

'Sweet Crust' bakery. Use pastel colors. Show HTML

+ CSS only."

Prompt Building Blocks

1. Role "You are a professional web designer."

2. Task "Create HTML/CSS for a bakery page."

3. Context "Bakery is called Sweet Crust. Pastel colors."

4. Input "Sections: Home, Menu, Contact."

5. Output "Show full HTML and CSS only."

6. Tone/Style "Cozy and modern."

7. Examples Optionally show a model or sample.

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Rules for Better Prompts

- Be specific.

- Use bullet points or lists.

- Mention what NOT to do.

- Give feedback: "Try again with lighter colors."

- Provide liked + disliked examples to guide output.

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How AI Thinks (Simple)

• AI doesn't 'understand' — it predicts the next word.

• Every word shapes the next prediction.

Context Window:

• AI has a memory limit.

• Very long or messy prompts cause confusion.

Clarity:

• Avoid contradictions like: "Use dark colors but make it bright."

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Hallucinations

• When AI gives information that sounds real but is

not.

Example:

• "What's the website for Happy Moon Café?" AI

may invent one.

Avoidance:

• Ask AI to verify what it's unsure about.

• Always double-check facts.

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Types of Prompting

- Zero-Shot Ask once, no examples.

- Few-Shot Give 1–3 examples.

- Chain-of-Thought Ask AI to reason step-by-step.

- Template / Structured Fixed format prompts.

- Iterative / Refinement Improve output using

feedback.

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RTCC for Coding Prompts

RTCC = Role, Task, Context, Constraints.

The 4 questions AI always needs:

• Who to act as (Role)

• What to do (Task)

• What background matters (Context)

• What rules or limits apply (Constraints)

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Step-by-Step & Incremental

Prompting

• Break tasks into small steps.

• Let AI explain reasoning.

Example (Café Menu):

1. List 5 breakfast items.

2. Suggest a drink for each.

3. Organize into menu sections.

Benefit:

• Better control and cleaner results.

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Templates & Few-Shot Prompting

- Templates let you reuse prompts.

- Few-shot gives AI examples to follow.

Example Template:

"Plan a [EVENT] for [AUDIENCE] with [NUMBER]

activities.

Output a schedule in bullet points."

Iteration & Self-Evaluation

- Ask for a first draft.

- Review it.

- Refine your prompt.

Explicit formatting:

- Ask for lists, tables, bullet points.

- Makes analysis easier.

Preventing Mistakes

- Be clear about what is real.

- Ask for verification when unsure.

- Provide context and real links.

- Avoid multitask prompts.

- Always double-check manually.

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Arabic Prompting Tips

• Prefer simple فصحى.

• Mix English for tech/business terms.

• Keep sentences short.

• Add examples inside the prompt.

Goal:

• Make prompts readable and direct.

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Vibe Coding: What It Is

• A creative AI-assisted way to build UI.

• You focus on design vision.

• AI generates layouts, components, and code.

• Boosts productivity and creativity.

Not replacing developers — enhancing them.

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Traditional Coding vs. Vibe Coding

Traditional:

• Manual coding from scratch.

• Slower prototyping.

• Heavy debugging.

Vibe Coding:

• AI-assisted generation.

• Fast iteration.

• Focus on clarity and creativity.

• Instant previews and edits.

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Why Prompting Matters in Vibe

Coding

- Prompting communicates design intent.

- Works like a mini design brief.

- Clear structure high-quality code.

Example:

 "Make a landing page."

 "You are a front-end designer. Build a clean

landing page for a fitness coach. Include hero,

services, testimonials, contact form. Use white +

pastel blue. Output HTML + CSS."

Frontend Project Delivery Pipeline

To release a usable frontend project:

• UI/UX planning.

• Use RTCC to generate code.

• Iterate with feedback.

• Integrate elements (forms, animations, links).

• Test responsiveness.

• Deploy using Netlify/Vercel/GitHub Pages.

• Deliver files + usage notes to client.

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Final Takeaways

Students should understand:

- What a prompt is.

- Why clarity matters.

- How to structure a request.

- How to think step-by-step.

- How to prevent hallucinations.

- How prompting powers Vibe Coding.

Core skill:

Prompting = clear thinking + precise

communication.

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For any questions please ask on Discord server - technical questions channel

For urgent cases you can send WA on +962787875915

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