

Guru Nanak Dev Engineering College

Training Diary – TR-102 Report

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Training Summary

What is Prompt Engineering?

Prompt engineering is the art of crafting inputs (prompts) to guide AI models like ChatGPT to give the most accurate and helpful results. It's essential for interacting effectively with AI tools.

Why Does It Matter?

- **Better Results:** A well-written prompt gives more accurate and useful responses.
 - **Saves Time & Cost:** Reduces repeated trial-and-error interactions.
 - **More Control:** You can shape tone, format, and depth of responses.
 - **Career Skill:** It's in demand for AI-related roles.
 - **Real-world Use:** Used in customer support, education, content creation, coding, and more.
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Anatomy of a Great Prompt

A great prompt is:

- **Clear:** No confusion or vague language
 - **Specific:** Direct about what is expected
 - **Contextual:** Contains relevant background info
 - **Goal-Oriented:** Focused on a desired output
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Prompt Writing Formula

Instruction + Context + Format + Constraints + Role

This formula helps in structuring prompts professionally and effectively.

Types of Prompts

1. **Instructional** – Tells the model what to do.
 2. **Role-based** – Asks the model to pretend to be someone (e.g., teacher, doctor).
 3. **Zero-shot** – No examples are given.
 4. **Few-shot** – A few examples are provided before the main task.
 5. **Chain-of-Thought** – Encourages step-by-step reasoning.
 6. **Constraint-based** – Adds limitations like word count, tone, or structure.
 7. **Reframed Prompts** – Rewriting a prompt for clarity or better results.
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Common Prompt Mistakes

- Vague instructions
 - Too broad or too short
 - Lack of context
 - Unclear goals
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Pro Prompting Tips

- Be clear and to the point
 - Add background/context
 - Define format (e.g., bullet points, summary)
 - Ask for specific output (e.g., word limit, examples)
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Tools for Prompt Engineering

- ChatGPT
 - DeepSeek
 - PromptLayer
 - FlowGPT
 - AIPRM for Chrome
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Prompting as a Career Skill

Prompt engineering is now a valuable skill in AI roles, useful for:

- AI model training
- Content generation
- Automation and product development

Activity: Prompt Master Challenge

Task: I chose the topic:

“Explain AI to a 6th Grader”

My Prompt:

"Act as a computer teacher. Your task is to introduce the concept of AI, its origin, importance, and uses to students in Standard 6. Keep it fun, simple, and easy to understand. Use real-life examples and avoid technical language."

Prompt Evaluation Table

Prompt Type	Bad Prompt	Good Prompt	ChatGPT	DeepSeek
Zero-shot	Tell me something about computers	Act as a computer expert. Explain computers simply to someone new. Use simple English, fun tone, and bullet points.	7.5	9
Chain-of-Thought	Why?	Act as a health expert. Explain why people get fever, how to cure it, in simple steps, no jargon.	8.5	9.5
Role-based	Act like a person	Act as a portfolio advisor. Help a 19-year-old girl invest ₹2500 monthly for long term with high-risk tolerance.	8.8	9.7
Zero-shot	Write a story	Act as a professional storyteller. Write a 100-word moral story ("sharing is caring") for Class 3, fun & simple style.	9	9.8
Instructional	Compare dogs and cats	Act as a school teacher. In 60 words, explain differences between dogs and cats to Class 3 kids using simple language.	8.8	9.7
Instructional	Summarize it	Summarize given content in 5 bullet points, within 50 words,	9.2	9.7

Prompt Type	Bad Prompt	Good Prompt	ChatGPT	DeepSeek
		using simple English, clearly covering all key ideas.		
Zero-shot	Give me ideas	List 10 self-love activities that cost nothing, take under 10 minutes, and can be done at home easily.	9.2	10
Instructional	How to make a website?	Act as a web developer. Guide a beginner to build a website—explain tools, topics to learn, and proper sequence.	8.3	9.8
Few-shot / Instr.	Fix this code	Act as a coder. Find bugs in the code, rewrite with comments, and explain each correction.	9	9.8
Constraint-based	Draw something	Draw a dusky Indian girl holding a red rose, wearing a kurta, brown open hair, small lips, white background.	8.5	9.5