

# Training Day 1 Report

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Venue: GNDEC Ludhiana - CSE Department

Topic: Introduction to Prompt Engineering

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## Overview

On Day 1 of our training on Prompt Engineering, we were introduced to the concept, structure, types, and real-world applications of prompts. The session emphasized how effective prompt writing is essential to interact with AI models like ChatGPT, Gemini, or Claude for optimal results.

We explored:

- What prompt engineering means and how it works,
- Real-world use cases across industries like education, software development, and business,
- The key components that make a great prompt,
- Various types of prompts such as instructional, creative, and analytical,
- The difference between good and bad prompts with examples.

The session laid a strong foundation for understanding how prompt structure directly affects AI responses, highlighting that clear, specific, and role-based prompts lead to better performance and accuracy.

## 1. What is Prompt Engineering?

Prompt engineering is the skill of crafting effective instructions (prompts) to guide an AI model (like ChatGPT, Gemini, Claude) to generate accurate, useful, and context-aware responses.

It acts as a bridge between human intent and machine understanding.

## 2. Real-World Use Cases of Prompt Engineering

- Education: Generating quizzes, lesson plans, summaries.
- Software Development: Code generation, debugging.
- Content Creation: Blogs, ads, social media content.
- Customer Support: Chatbot responses.
- Business: Drafting emails, reports, proposals.
- Research: Literature reviews, summarizing papers.
- Legal: Case law summaries, templates.
- Healthcare: Report drafts, simplification of medical texts.

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## 3. Anatomy of a Great Prompt

- Role: Assign a perspective (e.g., 'Act as a data analyst').
- Task: Clearly define what you want.
- Context: Provide background info.
- Constraints: Word count, tone, etc.
- Examples: Help model understand output style.

## 4. Types of Prompt Writing

- Informational: Ask for facts or definitions.
- Instructional: Direct the AI to perform a task.
- Creative: Generate stories, poems.
- Role-Based: Act as a teacher, lawyer, etc.
- Comparative: Compare two concepts.
- Summarization: Condense large content.
- Multi-Step: Ask step-by-step questions.
- Analytical: Evaluate or give pros/cons.

## 5. Good vs. Bad Prompt Examples

Bad: 'Write about climate change.'

Good: 'Act as an environmental expert. Explain the main causes of climate change in 100 words.'

Bad: 'Tell me about AI.'

Good: 'You are an AI researcher. Briefly explain what generative AI is and list 2 real-world uses.'

## Key Takeaways

- Prompt engineering improves AI accuracy.
- Knowing prompt types boosts productivity.
- Great prompts are clear, specific, and structured.
- Practicing structured prompts enhances communication with AI.