EX-5-prompt engineering -Comparative Analysis of different types of Prompting patterns and explain with Various Test scenarios

AIM: Test and compare how different pattern models respond to various prompts (naive or unstructured) versus basic prompts (basic and more refined) across multiple scenarios. Analyze the quality, accuracy, and depth of the generated responses.

OUTPUT:

Naive or unstructured prompt

1.**Prompt:** "Tell me about a character."

Chatgpt response:

Okay, here's a description of a character based on that naive prompt. I'll make some choices to give them some form:

Meet Elara Meadowlight. She's a wiry woman in her late 60s with a cascade of silver braids often adorned with wildflowers she's gathered on her morning walks. Her face is a roadmap of wrinkles, each line telling a silent story of laughter, hardship, and quiet contemplation. Her eyes, though, are the most striking feature – a startling shade of emerald green that seem to hold the wisdom of ancient forests.

2.**Prompt:** "Tell me something interesting."

Chatgpt response:

Alright, here's something you might find interesting, especially considering our current location in Chennai:

Did you know that the ancient Indian practice of stepwells (called pushkarani or vav in different regions) wasn't just about accessing groundwater? While their primary function was crucial in arid and semi-arid regions like parts of India, they also served as significant social, cultural, and even architectural hubs.

3.**Prompt:** "I have a problem."

Chatgpt response:

I understand. That's a naive statement, and to help you best, I need a little more information. Could you tell me more about what kind of problem you're facing? For example, is it:

Personal? (e.g., relationship issues, emotional distress, a difficult decision) Practical? (e.g., a technical issue, a logistical challenge, a problem with a task) Work-related? (e.g., a conflict with a colleague, a project roadblock, career uncertainty) Health-related? (though I can't give

medical advice, understanding the general nature might help me point you to appropriate resources)

: "a cat image"

4.Prompt: "a cat image"



5.Prompt: 'short poem'

Short poem

Of course! Here's a short one:

Raindrop
A single drop, a gentle sound,
It kisses earth without a bound.

Small and soft, yet full of grace—
A fleeting touch, then leaves no trace.

Want another with a different vibe?

Basic and more refined prompts

1.**Basic and More Refined Prompt:** "I'm looking for a good vegetarian restaurant in the Mylapore area of Chennai that serves South Indian breakfast and is open before 9 AM on a Sunday. My budget is around ₹300 per person. Can you suggest a few options?"

Chatgpt response:

Okay, based on your refined request for a good vegetarian restaurant in Mylapore, Chennai, serving South Indian breakfast before 9 AM on a Sunday with a budget of around ₹300 per person, here are a few potential options:

Murugan Idli Shop: This is a very popular and well-regarded chain in Chennai known for its consistently good South Indian breakfast. They have a branch in Mylapore (you'd need to verify the exact address, but they usually have a presence in prominent areas). They are typically open early and offer a variety of vegetarian South Indian breakfast items like idli, dosa, pongal, and vada within your budget. Their quality is generally reliable.

Mathsya: Located in Mylapore, Mathsya is another established vegetarian restaurant known for its South Indian cuisine. They usually open early for breakfast and offer a wide range of options, including various dosas, uthappams, and set meals that should fit within your budget. They are a popular choice for locals.

2. **Basic and More Refined Prompt:** "Since it's Saturday morning in Chennai and the weather is likely warm, what are some interesting things a tourist could do in the T. Nagar area that are open before noon and don't involve extensive outdoor walking due to the heat? I'm interested in experiencing local culture or shopping for unique souvenirs."

Chatgpt response:

Okay, given it's Saturday morning in Chennai, the weather is likely warm, and you're a tourist interested in experiencing local culture or shopping for unique souvenirs in T. Nagar before noon without extensive outdoor walking, here are a few suggestions:

Explore the Cultural Hub of Sri Ranganathan Street (Partially Indoors): While Ranganathan Street is known for its bustling street shopping, many of the larger textile showrooms and jewelry shops are air-conditioned and open by mid-morning (some might open around 10 AM or 10:30 AM). You can explore these for traditional South Indian textiles like Kanjeevaram sarees, readymade garments, and jewelry. Even walking between these larger shops can give you a sense of the local commercial energy without being entirely exposed to the heat for long durations. Look for shops like Nalli Silks, Pothy's, or Chennai Silks (though these might be slightly outside your "unique souvenirs" interest and more for traditional wear).

3.Basic and More Refined Prompt: Act as a digital marketing expert.

Chatgpt Response:

Absolutely — I'm your digital marketing expert. Whether you need help crafting a strategy, improving your SEO, setting up a paid ad campaign, analyzing performance data, boosting social media engagement, or anything else in the digital space, I'm here to dive in.

To tailor things better, can you tell me a bit about:

Your business or product

Your target audience

Your main marketing goals (e.g., brand awareness, lead generation, conversions)

Any platforms or tools you're already using?

Let's build something that gets results.

4. Basic and More Refined Prompt: Image of a cat holding a flower in its hands

Chatgpt response:



Ask anything

5. Basic and More Refined Prompt:

Act as an actor and you have 24 years of experience in film industry, explain your job role

Chatgpt response: Of course — here's a short version:

I'm an actor with **24 years of experience**. My main job is to **bring characters to life** by studying scripts, researching roles, rehearsing with other actors, and performing on set. I work closely with directors to match their vision, stay adaptable for different projects, and also help promote films after shooting. Over the years, I've also started **mentoring younger actors** coming into the industry.

TABULATION COMPARING THE TWO TYPES OF PROMPTING:

Naïve and refined/Basic prompts:

Scenario	Naïve Prompt Response	Basic/refined Prompt Response
Content Writing	Generic, short articles with basic structure and simple ideas.	Tailored, high-quality writing with rich style, targeted tone, and deeper insights.
Data Analysis	Basic summaries, might miss trends or nuances.	Full analysis with charts, patterns, predictions, and context-specific interpretations.
Coding/Programming	Short, simple code snippets that may need edits.	Robust, optimized code with explanations, edge case handling, and documentation.
Brainstorming Ideas	List of very common or obvious ideas.	Creative, fresh, and highly relevant ideas customized to the situation.
Customer Support Simulation	General FAQ-like answers without personalization.	Empathetic, situation-specific responses that anticipate user needs.
Strategy/Decision Making	Basic pros/cons lists or surface-level suggestions.	Detailed strategic frameworks, risk analysis, and alternative options.
Language Translation	Literal word-by-word translation, sometimes missing tone.	Context-aware translation, preserving tone, idioms, and cultural nuances.

Scenario	Naïve Prompt Response	Basic/refined Prompt Response
Storytelling/Creative Writing	character development	Complex, emotional narratives with layered characters and rich world-building.
Education/Tutoring	without much	Interactive teaching style, with examples, questions, and stepby-step guidance.
Professional Communication (emails, reports)	formal templates	Audience-tailored, persuasive, clear writing that fits professional standards.

The clarity of a prompt has a major impact on the quality, accuracy, and depth of ChatGPT's outputs. When prompts are vague or unclear, ChatGPT often produces generic, surface-level responses that may lack relevance or precision. The answers might be repetitive, basic, or even slightly off-topic, requiring users to ask multiple follow-up questions to get what they originally needed. In contrast, when prompts are clear, detailed, and well-structured, the AI delivers much higher quality outputs — responses are sharper, more polished, and specifically tailored to the user's intent.

Clear prompts also greatly improve the accuracy of the information provided, as ChatGPT can better understand the context and nuances. Additionally, detailed prompts encourage the AI to dive deeper into topics, offering layered analysis, examples, and creative solutions. Overall, the more precise and specific a prompt is, the more efficient, insightful, and valuable the response becomes.

RESULT:

AI, when faced with naive prompts, adeptly attempts to interpret the user's underlying intent by drawing upon its vast knowledge, often resulting in general or wide-ranging answers that may lack specific focus and could necessitate further clarification. In contrast, basic and more refined prompts enable the AI to deliver targeted, accurate, and detailed responses by efficiently retrieving and processing specific information, significantly reducing ambiguity and enhancing the overall value of the interaction. While the AI can handle naive queries, well-crafted prompts are crucial for unlocking its full potential and obtaining precise and relevant outputs, highlighting the importance of prompt engineering for effective communication