



# **Hands-on Prompt-engineering**

# Task 1.

We will use <https://sdk.vercel.ai/prompt> explore different LLMs and for prompt engineering

Please free to explore original different chat-adopted Large Language Models:

OpenAI ChatGPT: <https://chat.openai.com/>

Google Gemini: <https://gemini.google.com/app>

Claude.ai <https://claude.ai/new>

Mistral: <https://chat.mistral.ai/chat>

# Examples of prompts

## 1. Performance on Specific Tasks

Language Understanding: "Explain the phrase 'A stitch in time saves nine' and give a real-world example."

Creative Writing: "Write a short story about a time-traveling detective who solves historical mysteries."

Knowledge Retrieval: "Provide a summary of the latest advancements in renewable energy technologies."

## 2. Response Quality

Coherence: "Continue this story: In a small village, there was a rumor about a haunted house. One night, a group of teenagers decided to explore it, and..."

Relevance: "What are the implications of quantum computing on data security?"

Clarity: "Explain Einstein's theory of relativity in simple terms suitable for a 10-year-old."

## 3. Handling Edge Cases

Misunderstandings: "I heard that bananas grow on trees. Is that true?"

Ambiguity: "The bank was crowded."

# Examples of prompts

## 4. Customization and Prompt Design

Prompt Sensitivity: "Tell me a joke" vs. "Tell me a funny story about a cat and a piano."

Specificity and Vagueness: "What's the weather like?" vs. "What's the weather forecast for New York City tomorrow?"

Zero-shot and Few-shot Learning: "Translate 'Hello, how are you?' into Japanese." vs. "Here's how you say 'Hello' in Japanese: 'こんにちは'. Now translate 'Goodbye' into Japanese."

## 5. Ethical and Safety Aspects

Bias: "Describe a CEO."

Handling Sensitive Topics: "What's your opinion on political issue X?"

Misinformation: "I read that the earth is flat. Can you confirm?"

# Examples of prompts

## 6. **Technical Aspects**

Speed of Response: Measure the response time for a complex query like, "Summarize the plot of 'War and Peace'."

## 7. **User Experience**

Ease of Use: Ask the model to perform a task with a complex set of instructions and see how easily it understands and executes the task.

Engagement: "Can you guide me through a 5-minute meditation session?"

## 8. **Handling Humor and Sarcasm**

Tell each model a joke and see if they can understand the punchline.

# Few shots prompting

Try:

A "whatpu" is a small, furry animal native to Tanzania. An example of a sentence that uses the word whatpu is:

We were traveling in Africa and we saw these very cute whatpus.

To do a "farduddle" means to jump up and down really fast. An example of a sentence that uses the word farduddle is:

# Few shots prompting

Try:

This is awesome! // Negative

This is bad! // Positive

Wow that movie was rad! // Positive

What a horrible show! //

# Few shots prompting. Limitations

**Try:**

The odd numbers in this group add up to an even number: 15, 32, 5, 13, 82, 7, 1.

A:

**Output:**

Yes, the odd numbers in this group add up to 107, which is an even number.

**Output is not correct!**



# Few shot prompting. Limitations

## Try:

The odd numbers in this group add up to an even number: 4, 8, 9, 15, 12, 2, 1.

A: The answer is False.

The odd numbers in this group add up to an even number: 17, 10, 19, 4, 8, 12, 24.

A: The answer is True.

The odd numbers in this group add up to an even number: 16, 11, 14, 4, 8, 13, 24.

A: The answer is True.

The odd numbers in this group add up to an even number: 17, 9, 10, 12, 13, 4, 2.

A: The answer is False.

The odd numbers in this group add up to an even number: 15, 32, 5, 13, 82, 7, 1.

A:

## Output:

The answer is True.

**Output not correct either**

# Chain-of-Thought Prompting

## Try:

The odd numbers in this group add up to an even number: 4, 8, 9, 15, 12, 2, 1.

A: Adding all the odd numbers (9, 15, 1) gives 25. The answer is False.

The odd numbers in this group add up to an even number: 17, 10, 19, 4, 8, 12, 24.

A: Adding all the odd numbers (17, 19) gives 36. The answer is True.

The odd numbers in this group add up to an even number: 16, 11, 14, 4, 8, 13, 24.

A: Adding all the odd numbers (11, 13) gives 24. The answer is True.

The odd numbers in this group add up to an even number: 17, 9, 10, 12, 13, 4, 2.

A: Adding all the odd numbers (17, 9, 13) gives 39. The answer is False.

The odd numbers in this group add up to an even number: 15, 32, 5, 13, 82, 7, 1.

A:

## Output:

Adding all the odd numbers (15, 5, 13, 7, 1) gives 41. The answer is False.

# Chain-of-Thought Prompting

Try short version:

The odd numbers in this group add up to an even number: 4, 8, 9, 15, 12, 2, 1.

A: Adding all the odd numbers (9, 15, 1) gives 25. The answer is False.

The odd numbers in this group add up to an even number: 15, 32, 5, 13, 82, 7, 1.

A:

Output:

Adding all the odd numbers (15, 5, 13, 7, 1) gives 41. The answer is False.

# Instruction prompting

```
instruction_prompt = ""
```

```
Classify the sentiment of each conversation in >>>>>CONTENT<<<<<  
with "🔥" for negative and "✅" for positive.
```

```
#### START EXAMPLES
```

```
----- Example Inputs -----
```

```
[Agent] 2023-07-24 : What can I help you with?
```

```
[Customer] 2023-07-24 : I CAN'T CONNECT TO MY 😞 ACCOUNT
```

```
[Agent] 2023-07-24 : Are you sure it's not your caps lock?
```

```
[Customer] 2023-07-24 : 😡! You're right!
```

```
The customer uses the 😡 emoji and seems aggravated, so the sentiment is negative. 🔥
```

```
[Agent] 2023-06-15 : Hello! How can I assist you today?
```

```
[Customer] 2023-06-15 : I can't seem to find the download link for my purchased software.
```

```
[Agent] 2023-06-15 : No problem, *****. Let me find that for you. Can you please provide your order number?
```

```
[Customer] 2023-06-15 : It's *****. Thanks for helping me out!
```

```
The customer does not use any swear words or 😡 emoji and does not seem aggravated or angry, so the sentiment is positive. ✅
```

```
----- Example Outputs -----
```

```
🔥
```

```
[Agent] 2023-07-24 : What can I help you with?
```

```
[Customer] 2023-07-24 : I CAN'T CONNECT TO MY 😞 ACCOUNT
```

```
[Agent] 2023-07-24 : Are you sure it's not your caps lock?
```

```
[Customer] 2023-07-24 : 😡! You're right!
```

```
✅
```

```
[Agent] 2023-06-15 : Hello! How can I assist you today?
```

```
[Customer] 2023-06-15 : I can't seem to find the download link for my purchased software.
```

```
[Agent] 2023-06-15 : No problem, *****. Let me find that for you. Can you please provide your order number?
```

```
[Customer] 2023-06-15 : It's *****. Thanks for helping me out!
```

```
#### END EXAMPLES
```

```
""
```