

Using Advanced Prompting Techniques



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Module Overview



Zero-shot

Few-shot

Chain of thought

Least to most

Generated knowledge



| Zero-shot and Few-shot Prompting



Zero-shot Prompting

The prompt is simple and includes **ZERO** examples

The model was not explicitly trained for the task; rather, it uses general knowledge acquired during training



Zero-shot Prompting

Classify the sentiment for the following text.

Text: This course is awesome!

Sentiment:



Few-shot Prompting

The prompt includes a **FEW** contextual examples to enhance the model's performance for a given task



Few-shot Prompting

Classify the sentiment for the following text as superb, meh, or neutral.

Text: This course is awesome!

Sentiment: Superb

Text: I'm really confused by this course!

Sentiment: Meh

Text: It was so-so.

Sentiment: Neutral

Text: I loved it!

Sentiment:





Chain of Thought



Chain of Thought

(and Least to Most)

Used to solve complex problems by breaking them into smaller steps



Chain of Thought

Q: I have a rectangular garden that's 20 feet long and 10 feet wide. How many square feet is that?

A: That's 200 square feet.

Q: I want to cover the garden in mulch. One bag of mulch covers 25 square feet. How many bags do I need?

A: You need 8 bags of mulch.

Q: Each bag costs \$5. How much will it cost me to cover the garden?

A: It will cost \$40.



Chain of Thought

I have a rectangular garden that's 20 feet long and 10 feet wide. A bag of mulch covers 25 square feet. Each bag costs \$5. How much will it cost me to cover the garden in mulch?

Think step by step:



Least to Most

It takes Elbra 10 minutes to play the first half of a miniature golf game. It takes her 7 minutes to play the second half of the game. The golf course closes in 3 hours. How many more rounds of golf can she play before the course closes?



Least to Most

It takes Elbra 10 minutes to play the first half of a miniature golf game. It takes her 7 minutes to play the second half of the game.

How long does one total game take?

One total game takes 17 minutes.

How many minutes are in 3 hours?

There are 180 minutes in 3 hours.

What is 180 minutes / 17 minutes?

$180 \text{ minutes} / 17 \text{ minutes} = 10.58$

Round down to the nearest whole number.





Generated Knowledge



Generated Knowledge

Provides additional knowledge or context to improve the performance of complex tasks, such as reasoning.



Generated Knowledge



Question

What would happen if the moon disappeared?



Knowledge Generation

Knowledge 1: Earth rotates around an axis that is tilted at 23.5° , and this is why we have the seasons...

Knowledge 2: Tidal movements play an important role in Earth's climate, since they drive current...

Knowledge 3: The tidal force exerted by the moon causes Earth, and particularly its water, to bulge out on the side closest to the moon...



Answer

If the moon disappeared, the Earth's tides would disappear. The moon causes the tides by its gravitational pull.



Generated Knowledge Code Example

Here's the documentation for an API endpoint that converts between currencies. Write a Java method to call this code.

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{code from API documentation}





Module Summary



Module Summary



Depending on the complexity of the task, you may need to use more advanced prompting techniques to get the desired results

- Zero-shot and few-shot
- Chain of thought and least to most
- Generated knowledge



Up Next:

Ethical Considerations

