

Starting April 29, 2025, Gemini 1.5 Pro and Gemini 1.5 Flash models are not available in projects that have no prior usage of these models, including new projects. For details, see [Model versions and lifecycle](#) (/vertex-ai/generative-ai/docs/learn/model-versions#legacy-stable).

Instruct the model to explain its reasoning

When you tell the model to explain its reasoning, the model responds with the steps that it employs to solve the problem. Going through this process can sometimes improve accuracy and nuance, especially for challenging queries.

The reasoning steps are included as part of the response. To parse out the reasoning steps from the answer that you're looking for, you can specify an output format by using XML or other separators.

Examples

For example, suppose you're writing a cooking blog and you want the model to tell you how readers might interpret different parts of the blog. If you don't instruct the model to explain its reasoning, the response from the model might not be as useful as you'd like:

o reasoning

:

is the most likely interpretation of this sentence?

sentence: "The chef seasoned the chicken and put it in the oven because it looked pale"

se:

hef seasoned the chicken and put it in the oven because it lacked color and needed

.ng.

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While you learned about how the model predicts readers might interpret the sentence, it might be useful for you to understand more about the specific predictions that the model made to produce the response. As demonstrated in the following example, the quality of the response might also improve:

plain reasoning

:

is the most likely interpretation of this sentence? Explain your reasoning

sentence: "The chef seasoned the chicken and put it in the oven because it looked pale

se:

interpreting "The chef seasoned the chicken and put it in the oven because it looked pale

most likely interpretation is that the chef seasoned the chicken to add flavor and color, then put it in the oven to cook it.

s the reasoning:

reasoning is typically used to enhance the flavor of food. Chefs often use spices, herbs, and other ingredients to make their dishes more appealing.

"pale" suggests the chicken lacked visual appeal before being seasoned. This could imply unseasoned or simply lacking color from spices.

Putting the chicken in the oven is a common cooking method. The sentence implies the chef's intention is to cook the chicken, not just season it.

Therefore, the chef's actions are likely aimed at both improving the taste and appearance of the chicken through seasoning and then cooking it in the oven.

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Another technique you can use to improve the model's response is to instruct the model to think step-by-step and explain its reasoning. This requires the model to break down the input into steps and provide the reasoning its using to solve the problem:

ink step-by-step

:

is the most likely interpretation of this sentence? Think step by step and print out thinking process.

se output in JSON format with final answer in 'answer', and thinking steps in 'think'

sentence: "The chef seasoned the chicken and put it in the oven because it looked pale"

se:

```

{
  "answer": "The chef seasoned the chicken to enhance its flavor and put it in the oven",
  "think": [
    {
      "step": 1,
      "thought": "The chef seasoned the chicken. This suggests that the chef is preparing the chicken."
    },
    {
      "step": 2,
      "thought": "The chef put the chicken in the oven. This indicates that the chef is cooking the chicken."
    },
    {
      "step": 3,
      "thought": "The sentence states that the chicken looked pale. Pale chicken is often a sign of undercooking."
    },
    {
      "step": 4,
      "thought": "Combining these observations, it is most likely that the chef seasoned the chicken to enhance its flavor and put it in the oven to cook it."
    }
  ]
}

```

By prompting the model to print out its thinking process, the model generated a more thorough response and you learned more about how it generated that response.

What's next

- Explore more examples of prompts in the [Prompt gallery](https://cloud.google.com/vertex-ai/generative-ai/docs/prompt-gallery) (/vertex-ai/generative-ai/docs/prompt-gallery).

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