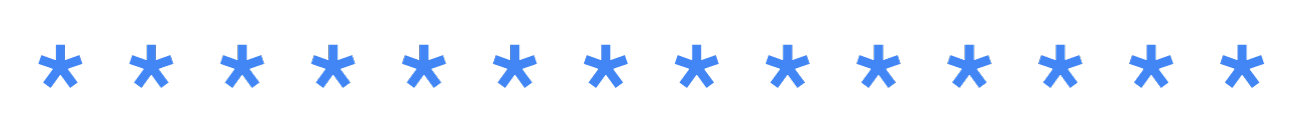
# **Prompt engineering best practices**

Generative AI tools react to what we ask them to—the better the input, the more useful their output. Use this guide to create effective prompts that help generative AI tools perform their best so you can get the most valuable response.



## **Specify the task**

Generative AI tools are trained on massive amounts of data. You need to get specific about your desired result so the tool can deliver a focused output. Be clear about what you want the generative AI tool to do by providing sufficient parameters. Use straightforward language, and structure queries in a logical way to enhance how the tool interprets your request. No specific set up is best; write intuitively and focus on clarity.

**Example:** *Draft an informal email to my manager requesting time off.*

## **Provide necessary context**

Context shapes how generative AI tools respond to a prompt by providing important information about your expectations. With relevant context, it is more likely the tools will generate useful output.

Include key details about your request to give the generative AI tool the information it needs to generate useful output. Here are some questions to consider when writing an effective prompt:

* **Who’s the target audience?** Specify relevant qualities of the audience, such as their age, profession, or level of understanding on a topic.
* **What should the tone of the output be?** Clarify the voice and style the tool should use to most effectively convey the message. You might want an output that’s casual and friendly if you’re using it to communicate with a peer or something more professional and persuasive for clients.
* **How should the output be structured?** Specify the format the tool should use to order the information it provides. You may include guidance about length or specify a type of layout, such as a bulleted list or table.
* **What’s the output’s goal?** Identify what you want the generative AI tool to accomplish with a given prompt. For example, if your prompt asks the tool to explain a concept, the goal might be to ensure beginners in that specific field gain a working understanding of the topic. Giving a generative AI tool a goal will help shape the outputs to your specific needs.

**Example:** *Write a friendly email to my HR coworker thanking them for their collaboration on a recent project so they know their contributions were invaluable.*

## **Provide references**

Providing generative AI tools with reference materials that achieve your goals or resemble what you want to create can help generate more useful outputs. Whether you’re including your own work, broader sources, or both, you also want to explain clearly how these reference materials relate to your prompt for the best possible results.

**Example:** *Draft a list of potential campaign slogans for a sunglass company in the writing style of 1960s billboard advertisements.*

## **Evaluate your output**

Each generative AI tool uses a unique training set, relies on different programming techniques, and is developed at a specific point in time. As a result, some generative AI tools may know more about certain topics than others or may experience a knowledge cutoff. Generative AI tools can occasionally hallucinate, too. Hallucinations are AI outputs that are not true.

Before you use an AI-generated output, critically assess the output to ensure it's acceptable and beneficial to you. This may involve conducting some research after the tool produces its output. When evaluating an output, ask yourself:

* **Is this response accurate?** Confirm the information is up-to-date and factual.
* **Is this response unbiased?** Evaluate whether the response is fair and impartial, accurately represents populations, and avoids preferential treatment for certain individuals or groups.
* **Does this response include sufficient information?** Ensure the response delivers a comprehensive and satisfactory response to your query.
* **Is this response relevant to what I need?** Check that the output relates to your prompt and aligns with the context, topic, and task you outlined.
* **Is this response consistent?** Verify that your response isn’t an outlier. If you aren’t sure, try prompting the tool multiple times in different ways to ensure the outputs give you similar information.

If you determine an output is unacceptable, try to add more context to the initial prompt to generate a more focused response:

**Example:** The output from a prompt like “What’s a conditional?” might be broad, varied, or irrelevant to your needs, since that term has different meanings in various contexts.

**Iteration:** Instead, a prompt like “Explain ‘conditionals’ to a beginner coder like a textbook”would most likely produce a more targeted, useful output by specifying the audience, tone, and discipline.

## **Take an iterative approach**

For whatever reason, a generative AI tool might not produce what you need the first time you ask for it. You can still arrive at your desired outcome with some iteration—by refining the initial prompt, issuing follow-up requests, or giving the tool feedback.

To successfully revise a prompt, keep what worked and adjust the input from there. You might change some phrasing (like whether the prompt is a command or question), reorder the prompt’s components (like whether you start or end with an example), or provide additional context to help narrow the tool’s responses.

**Example:** *Summarize the following meeting notes.*

**Iteration:** *Summarize the following meeting notes and identify key takeaways.*

**Further iteration:** *Summarize the following meeting notes, identify key takeaways, and list the most urgent action items with their deadlines.*

To efficiently issue follow-up requests, ask the generative AI tool to make adjustments without repeating the initial prompt, like a back-and-forth dialogue. Generative AI tools are able to build off of prior interactions within a conversation, which means you can focus on making targeted, individual adjustments until you have everything you need.

**Example:** *Summarize the following meeting notes.*

**Follow-up:** *What were key takeaways from this meeting?*

**Second follow-up:** *What are the most urgent action items and their deadlines?*