

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).

Use system instructions

This document describes how to use system instructions. To learn about what system instructions are and best practices for using system instructions, see [Introduction to system instructions](#) (/vertex-ai/generative-ai/docs/learn/prompts/system-instruction-introduction) instead.

System instructions are a set of instructions that the model processes before it processes prompts. We recommend that you use system instructions to tell the model how you want it to behave and respond to prompts. For example, you can include things like the role or persona, contextual information, and formatting instructions:

```
You are a friendly and helpful assistant.  
Ensure your answers are complete, unless the user requests a more concise approach.  
When generating code, offer explanations for code segments as necessary and maintain  
When presented with inquiries seeking information, provide answers that reflect a dee  
For any non-english queries, respond in the same language as the prompt unless otherw  
For prompts involving reasoning, provide a clear explanation of each step in the reas
```

When a system instruction is set, it applies to the entire request. It works across multiple user and model turns when included in the prompt. Though system instructions are separate from the contents of the prompt, they are still part of your overall prompts and therefore are subject to standard data use policies.

Note: System instructions can help guide the model to follow instructions, but they don't fully prevent jailbreaks or leaks. We recommend exercising caution around putting any sensitive information in system instructions.

Use cases


You can use system instructions in many ways, including:


- Defining a persona or role (for a chatbot, for example)
- Defining output format (Markdown, YAML, etc.)
- Defining output style and tone (for example, verbosity, formality, and target reading level)
- Defining goals or rules for the task (for example, returning a code snippet without further explanations)
- Providing additional context for the prompt (for example, a knowledge cutoff)
- Specifying which language the model should respond in (sometimes models can respond in your local language, even if the prompt is written in another language). When you use a non-English language for your prompts, we recommend you add the following to your system instructions:

All questions should be answered comprehensively with details, unless the user r

Code samples

The code samples on the following tabs demonstrate how to use system instructions in your generative AI application.

<u>Python</u> Gen AI SDK	<u>Go</u> Gen AI SDK	<u>Node.js</u> Gen AI SDK	<u>Java</u> Gen AI SDK	<u>REST</u> (#rest)
<h3>Install</h3> <pre>pip install --upgrade google-genai</pre> <p>To learn more, see the SDK reference documentation (https://googleapis.github.io/python-genai/).</p> <p>Set environment variables to use the Gen AI SDK with Vertex AI:</p> <pre># Replace the `GOOGLE_CLOUD_PROJECT` and `GOOGLE_CLOUD_LOCATION` values # with appropriate values for your project. export GOOGLE_CLOUD_PROJECT=<u>GOOGLE_CLOUD_PROJECT</u> </pre>				

```
export GOOGLE_CLOUD_LOCATION=global   
export GOOGLE_GENAI_USE_VERTEXAI=True
```

```
from google import genai  
from google.genai.types import GenerateContentConfig, HttpOptions  
  
client = genai.Client(http_options=HttpOptions(api_version="v1"))  
response = client.models.generate_content(  
    model="gemini-2.5-flash",  
    contents="Why is the sky blue?",  
    config=GenerateContentConfig(  
        system_instruction=[  
            "You're a language translator.",  
            "Your mission is to translate text in English to French.",  
        ],  
    ),  
)  
print(response.text)  
# Example response:  
# Pourquoi le ciel est-il bleu ?
```

Prompt examples

The following are examples of system prompts that define the expected behavior of the model.

Code generation

generation

instructions:

are a coding expert that specializes in rendering code for front-end interfaces. When I describe a component of a website I want to build, please return the HTML and CSS needed to build it. Do not give an explanation for this code. Also offer some UI design suggestions.

:

re a box in the middle of the page that contains a rotating selection of images each v
 ution. The image in the center of the page should have shadowing behind it to make it
 l out. It should also link to another page of the site. Leave the URL blank so that I
 it in.

Formatted data generation

Formatted data generation

instructions:

are an assistant for home cooks. You receive a list of ingredients and respond with a
 recipes that use those ingredients. Recipes which need no extra ingredients should alw
 isted before those that do.

response must be a JSON object containing 3 recipes. A recipe object has the followin
 ia:

ie: The name of the recipe
 dIngredients: Ingredients in the recipe that were provided in the list
 erIngredients: Ingredients in the recipe that were not provided in the
 (omitted if there are no other ingredients)
 scription: A brief description of the recipe, written positively as if
 all it

:

.b bag frozen broccoli
)int heavy cream
 .b pack cheese ends and pieces

Music chatbot

chatbot

instructions:

will respond as a music historian, demonstrating comprehensive knowledge across diverse musical genres and providing relevant examples. Your tone will be upbeat and enthusiastic, adding the joy of music. If a question is not related to music, the response should be, "This is beyond my knowledge."

:

person was born in the sixties, what was the most popular music genre being played when they were born? List five songs by bullet point.

Financial analysis

Financial analysis

instructions:

As a financial analysis expert, your role is to interpret complex financial data, offer personalized advice, and evaluate investments using statistical methods to gain insights across different financial areas.

Accuracy is the top priority. All information, especially numbers and calculations, must be exact and reliable. Always double-check for errors before giving a response. The way you respond should change based on what the user needs. For tasks with calculations or data analysis, focus on being precise and following instructions rather than giving long explanations. If you're unsure, ask the user for more information to ensure your response meets their needs.

For tasks that are not about numbers:

- Use clear and simple language to avoid confusion and don't use jargon.
- Be sure you address all parts of the user's request and provide complete information.
- Think about the user's background knowledge and provide additional context or explanation if needed.

Formatting and Language:

How any specific instructions the user gives about formatting or language.
 Proper formatting like JSON or tables to make complex data or results easier to
 stand.

:

se summarize the key insights of given numerical tables.

VALIDATED STATEMENTS OF INCOME (In millions, except per share amounts)

Ended December 31 | 2020 | 2021 | 2022 |

| --- | --- | --- |

Revenues | \$ 182,527 | \$ 257,637 | \$ 282,836 |

Costs and expenses:

Cost of revenues | 84,732 | 110,939 | 126,203 |

Research and development | 27,573 | 31,562 | 39,500 |

Selling and marketing | 17,946 | 22,912 | 26,567 |

General and administrative | 11,052 | 13,510 | 15,724 |

Other costs and expenses | 141,303 | 178,923 | 207,994 |

Income from operations | 41,224 | 78,714 | 74,842 |

Other income (expense), net | 6,858 | 12,020 | (3,514) |

Income before income taxes | 48,082 | 90,734 | 71,328 |

Provision for income taxes | 7,813 | 14,701 | 11,356 |

Net income | \$40,269 | \$76,033 | \$59,972 |

Basic net income per share of Class A, Class B, and Class C stock | \$2.96 | \$5.69 | \$4.59 |

Diluted net income per share of Class A, Class B, and Class C stock | \$2.93 | \$5.61 | \$4.56 |

se list important, but no more than five, highlights from 2020 to 2022 in the given ta

se write in a professional and business-neutral tone.

summary should only be based on the information presented in the table.

Market sentiment analysis

t sentiment analysis

instructions:

are a stock market analyst who analyzes market sentiment given a news snippet. Based on a news snippet, you extract statements that impact investor sentiment.

and in JSON format and for each statement:

Give a score 1 - 10 to suggest if the sentiment is negative or positive (1 is most negative; most positive, 5 will be neutral).

Iterate the statement.

Give a one sentence explanation.

:

Mobileye reported a build-up of excess inventory by top-tier customers following supply-chain constraints in

past years. Revenue for the first quarter is expected to be down about 50% from \$458 million, compared to

the same period earlier, before normalizing over the remainder of 2024, Mobileye said. Mobileye forecasts revenue for

the full-year 2024 at between \$1.83 billion and \$1.96 billion, down from the about \$2.08 billion that it expects for 2023.

What's next

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

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