

Hacks for Working with Gemini

January 2026

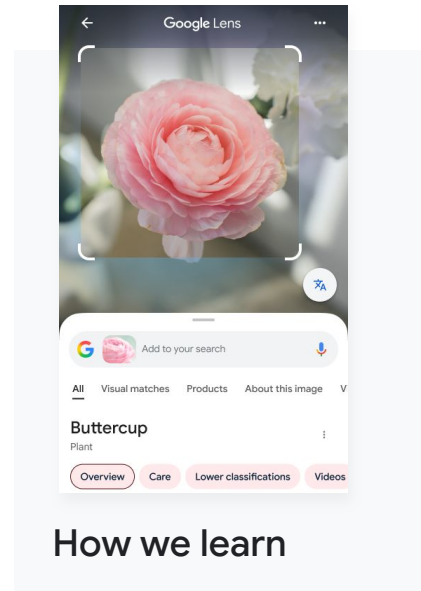
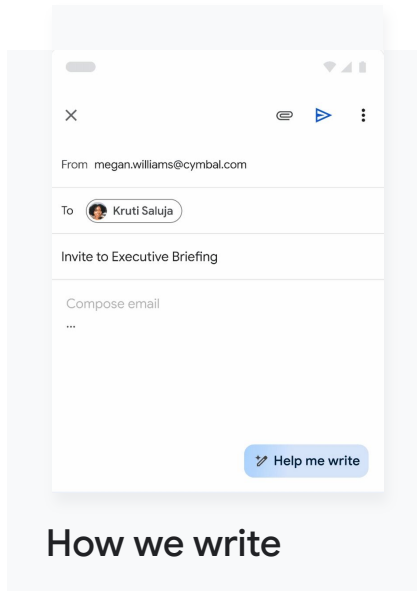
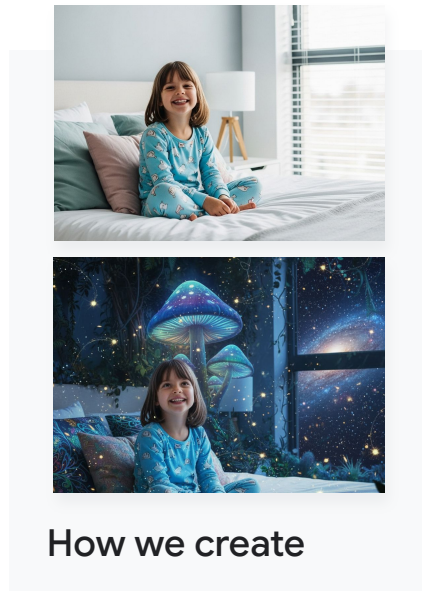
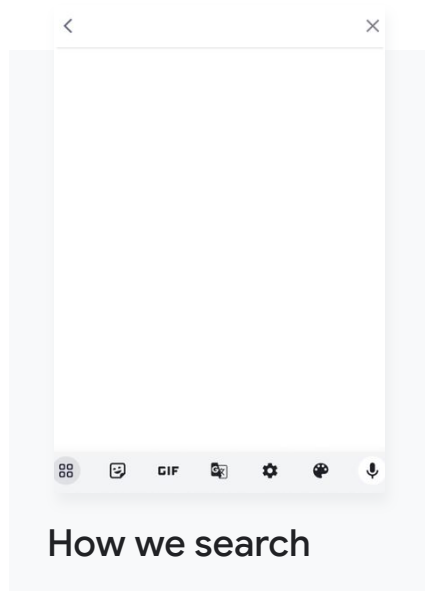


Proprietary & Confidential



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AI is changing how we interact with the world.



What is artificial intelligence?

Teaching computers to do tasks that normally require human intelligence

It'll take you 28 minutes
to get home

Here's what you should stream next

What is GenAI?

While some AI analyzes or predicts, GenAI creates something **new** based on the prompts you give it. GenAI is powered by **Large Language Models** (LLMs).

Write me an email that
summarizes this meeting

Explain how the NBA draft works in plain
language

What is a generative AI agent?

A Generative AI Agent is defined as an **application** that tries to achieve a **goal** by **observing** the world and **acting** upon it using the **tools** it has at its disposal.

Anatomy of a Prompt

Persona

You are an expert policy analyst for a state's Department of Health. I am drafting a memo for my director about the impact of new federal food safety regulations on local restaurants.

Context

Task

Summarize the key changes in the attached document, identify three potential challenges for small business owners, and suggest one outreach strategy for each challenge. Present the summary as a bulleted list and put the challenges and strategies into a markdown table.

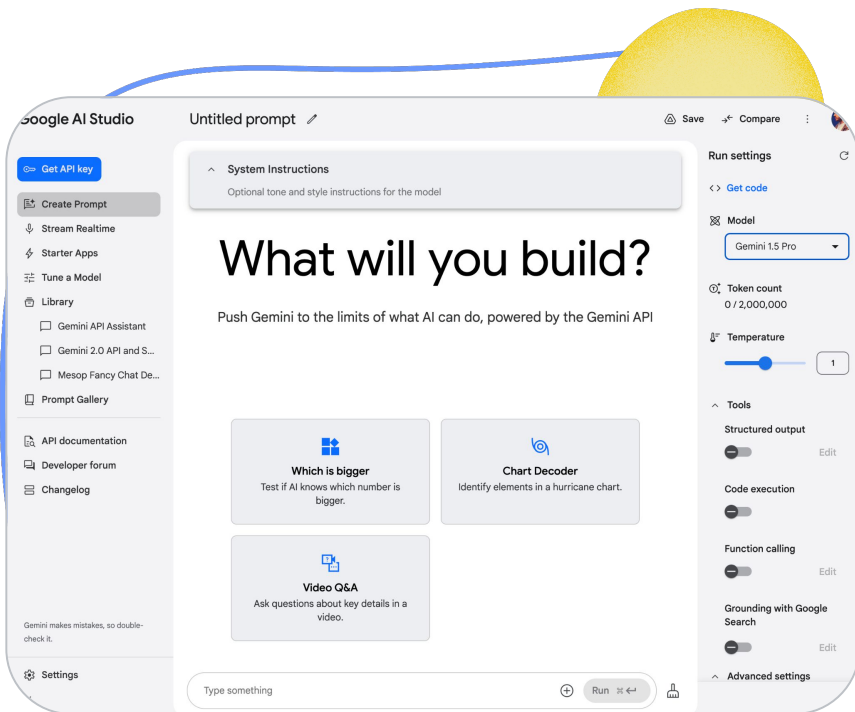
Result

Data privacy commitments:

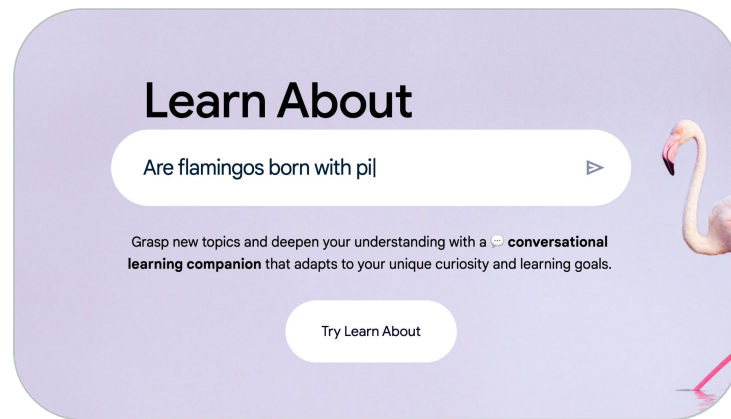
- 01 Customers own their data, not Google.
- 02 We guard against insider access to data.
- 03 Google **never sells customer data** to third parties.
- 04 Your data is **not used to train Google models** (models are frozen).
- 05 Google **does not** use customer data for advertising.
- 06 Your data is **not used to train** models for any other customer.

Demo Time!

Tools @ Google



aistudio.google.com



labs.google.com

Google Cloud

Google Cloud Generative AI Github

	Description
 gemini/	Discover Gemini through starter notebooks, use cases, function calling, sample apps, and more.
 search/	Use this folder if you're interested in using Vertex AI Search , a Google-managed solution to help you rapidly build search engines for websites and across enterprise data. (Formerly known as Enterprise Search on Generative AI App Builder)
 rag-grounding/	Use this folder for information on Retrieval Augmented Generation (RAG) and Grounding with Vertex AI. This is an index of notebooks and samples across other directories focused on this topic.
 conversation/	Use this folder if you're interested in using Vertex AI Conversation , a Google-managed solution to help you rapidly build chat bots for websites and across enterprise data. (Formerly known as Chat Apps on Generative AI App Builder)
 language/	Use this folder if you're interested in building your own solutions from scratch using Google's language foundation models (Vertex AI PaLM API).
 vision/	Use this folder if you're interested in building your own solutions from scratch using features from Imagen on Vertex AI (Vertex AI Imagen API). These are the features that Imagen on Vertex AI offers: • Image generation • Image editing • Visual captioning • Visual question answering
 audio/	Use this folder if you're interested in building your own solutions from scratch using features from Chirp, a version of Google's Universal Speech Model (USM) on Vertex AI (Vertex AI Chirp API).



github.com/GoogleCloudPlatform/generative-ai

Vertex AI Cookbook

Generative AI on Vertex AI > Documentation

Was this helpful?  

Generative AI on Vertex AI Cookbook



[Send feedback](#)

A collection of guides and examples for Generative AI on Vertex AI.

Explore more in the [Generative AI Repository on GitHub](#).

Gemini Quickstarts



Intro to Gemini 2.0 Flash

Get started with Gemini 2.0 in Vertex AI with the Gen AI Python SDK.

[GEMINI](#)

[View on GitHub](#) →



Intro to Prompt Engineering

Learn the essentials and best practices of prompt engineering.

[GEMINI](#) [PROMPTING](#)

[View on GitHub](#) →



Function Calling with Gemini

Connect Gemini to external tools using function calling.

[FUNCTION CALLING](#) [GEMINI](#)

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Grounding with Gemini

Connect Gemini to real-world data from Google Search or Vertex AI Search to improve response quality.

[GEMINI](#) [GROUNDING](#) [RAG](#)

[SEARCH](#)

[View on GitHub](#) →



Gemini Batch prediction

Use Batch Prediction to run inference on a large number of examples.

[BATCH PREDICTION](#) [GEMINI](#)

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Long Context Window

Use the Long Context Window to process large amounts of multimodal data.

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Intro to Context Caching

Use context caching to store frequently used data.

[GEMINI](#)

Intro to Controlled Generation with the Gemini API

Learn to control Gemini API output formats for easier data processing.



goo.gle/vertex-ai-cookbook

Thank You

Google Cloud