

# Imagen 3 Image Generation Lab

## Overview

Imagen 3 on Vertex AI brings Google's state of the art generative AI capabilities to application developers. Imagen 3 is Google's highest quality text-to-image model to date. It's capable of creating images with astonishing detail. Thus, developers have more control when building next-generation AI products that transform their imagination into high quality visual assets.

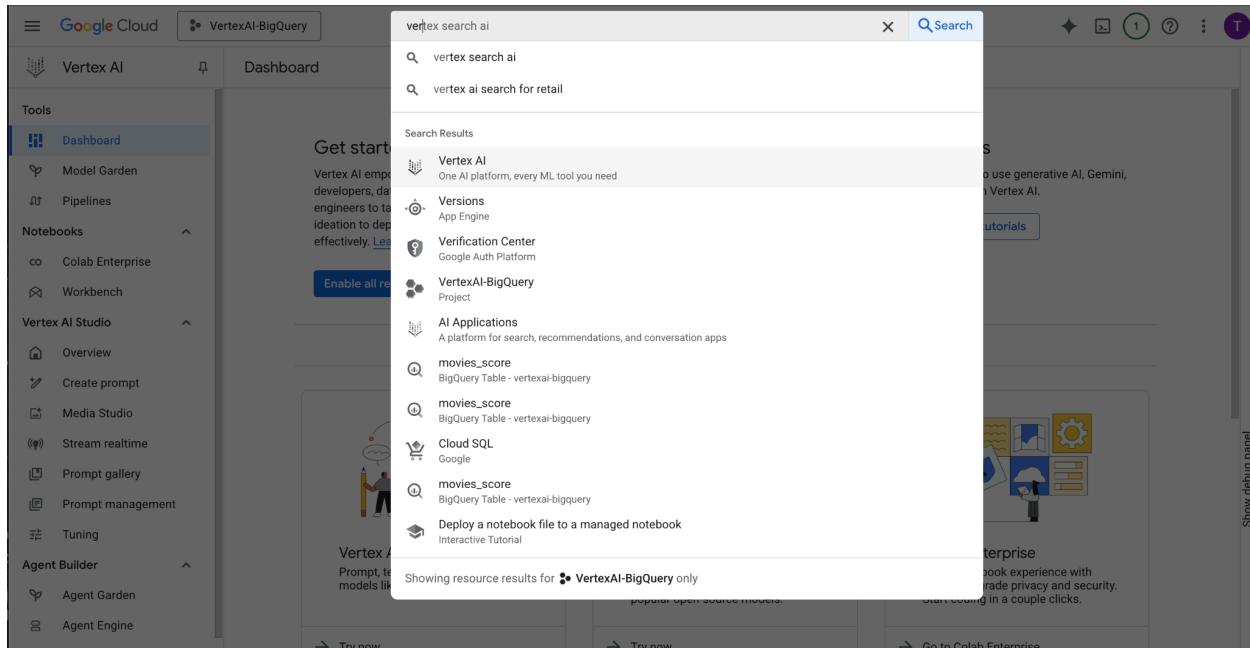
Learn more about [Imagen on Vertex AI] (<https://cloud.google.com/vertex-ai/generative-ai/docs/image/overview>).

In this tutorial, you will learn how to use the Vertex AI console to interact with the Imagen 3 and Imagen 3 Fast models to generate images showcasing:

- Photorealistic scenes
- Text rendered within images

## Go to Vertex AI

In the search bar at the top, search for Vertex AI and click on it.



## Media Studio

On the left hand side click on Media Studio and click on Imagen

The screenshot shows the Google Cloud Vertex AI Media Studio interface. The left sidebar has a tree view of tools and notebooks. The 'Media Studio' section is selected. The main area has a heading 'Media Studio' with 'Documentation' and 'API Reference' links. It features a 'Start with a text prompt' section showing icons for four models: Imagen (Generate images), Chirp (Generate voice), Lyria (Generate music), and Veo (Generate video). Below this is a 'Get inspired' section with several thumbnail images and their descriptions:

- A photorealistic image of a lavender perfume bottle in a still life...
- A time-lapse of a futuristic cityscape, where people live and work in giant,...
- A powerful image of a female astronaut in a spacesuit, looking out...
- The scenery of the mountain top, as far as the eye can see, epic scenery...
- Two other thumbnails are partially visible.

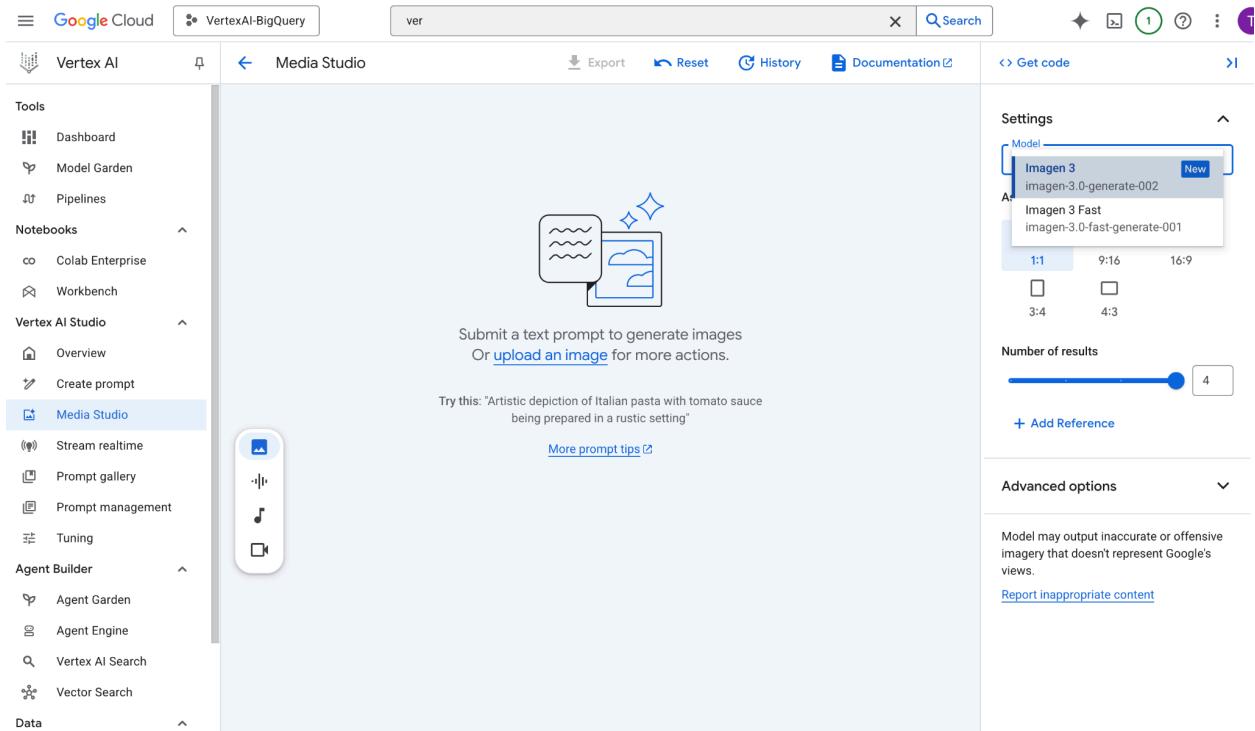
## Imagen 3 & Imagen 3 Fast

With Imagen 3, you also have the option to use Imagen 3 Fast. These two model options give you the choice to optimize for quality and latency, depending on your use case.

**Imagen 3:** Generates high quality images with natural lighting and increased photorealism.

**Imagen 3 Fast:** Suitable for creating brighter images with a higher contrast. Overall, you can see a 40% decrease in latency in Imagen 3 Fast compared to Imagen 2.

You can choose between the two models in the Settings option at the right hand side of Media Studio.



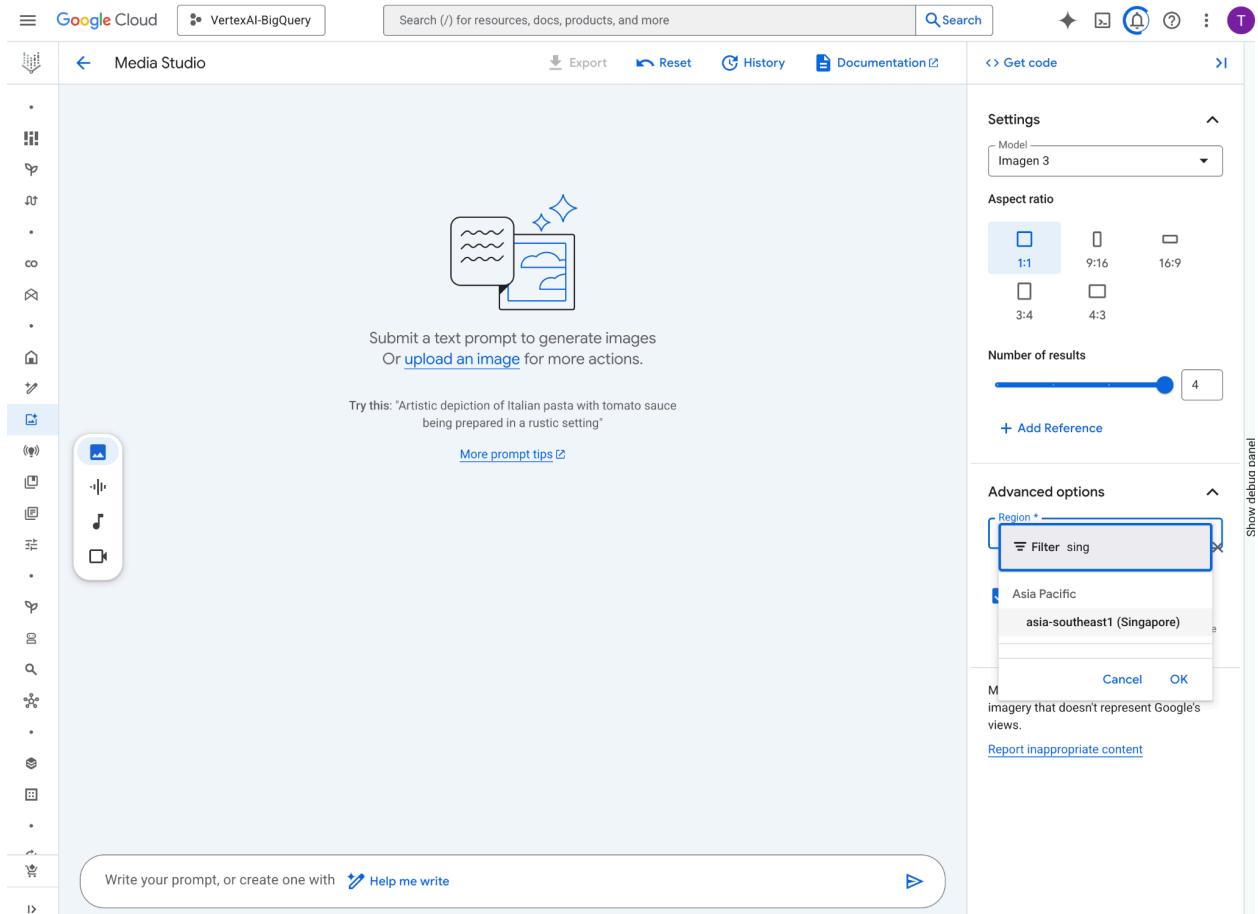
With Imagen 3 and Imagen 3 Fast, you can also configure the aspect ratio to any of the following:

- \* 1:1
- \* 9:16
- \* 16:9
- \* 3:4
- \* 4:3

You can also change this on the right side.

## Region Selection

On the right side click on the Advanced options arrow to expand the options.  
Change the region to asia-southeast1 (singapore)



## Prompting to generate images

You can input your prompt in the prompt bar at the bottom

Sample prompt: *a photorealistic image of the inside of an amethyst crystal on display in a museum*

Google Cloud VertexAI-BigQuery ver Search

Vertex AI Media Studio Export Reset History Documentation Get code

Tools

- Dashboard
- Model Garden
- Pipelines

Notebooks

- Colab Enterprise
- Workbench

Vertex AI Studio

- Overview
- Create prompt
- Media Studio**
- Stream realtime
- Prompt gallery
- Prompt management
- Tuning

Agent Builder

- Agent Garden
- Agent Engine
- Vertex AI Search
- Vector Search

Data

- Feature Store
- Datasets

Model development

- Marketplace

Submit a text prompt to generate images  
Or [upload an image](#) for more actions.

Try this: "Artistic depiction of Italian pasta with tomato sauce being prepared in a rustic setting"

[More prompt tips](#)

a photorealistic image of the inside of an amethyst crystal on display in a museum

Settings Model — Imagen 3

Aspect ratio

1:1	9:16	16:9
3:4	4:3	

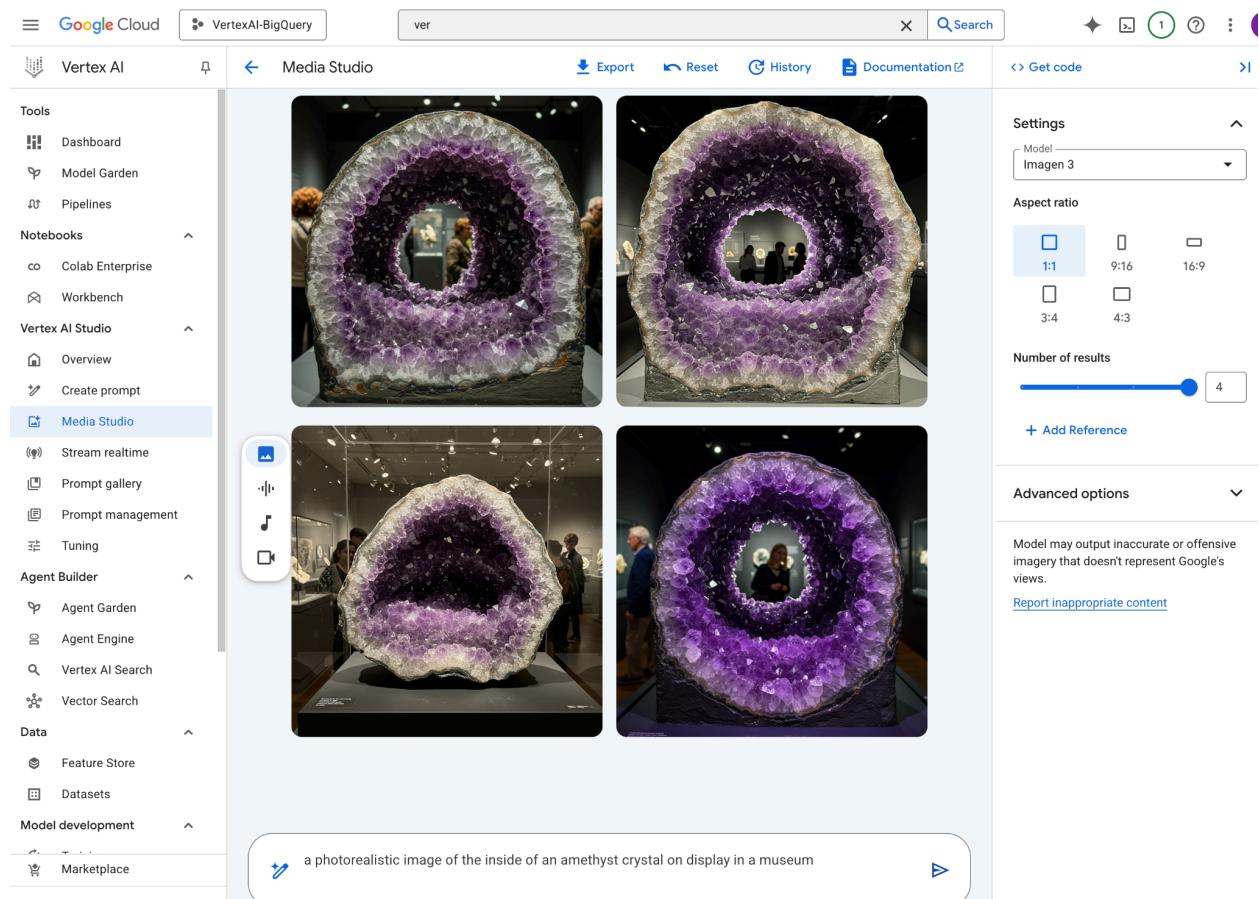
Number of results 4

+ Add Reference

Advanced options

Model may output inaccurate or offensive imagery that doesn't represent Google's views.  
[Report inappropriate content](#)

You should see the images generated:

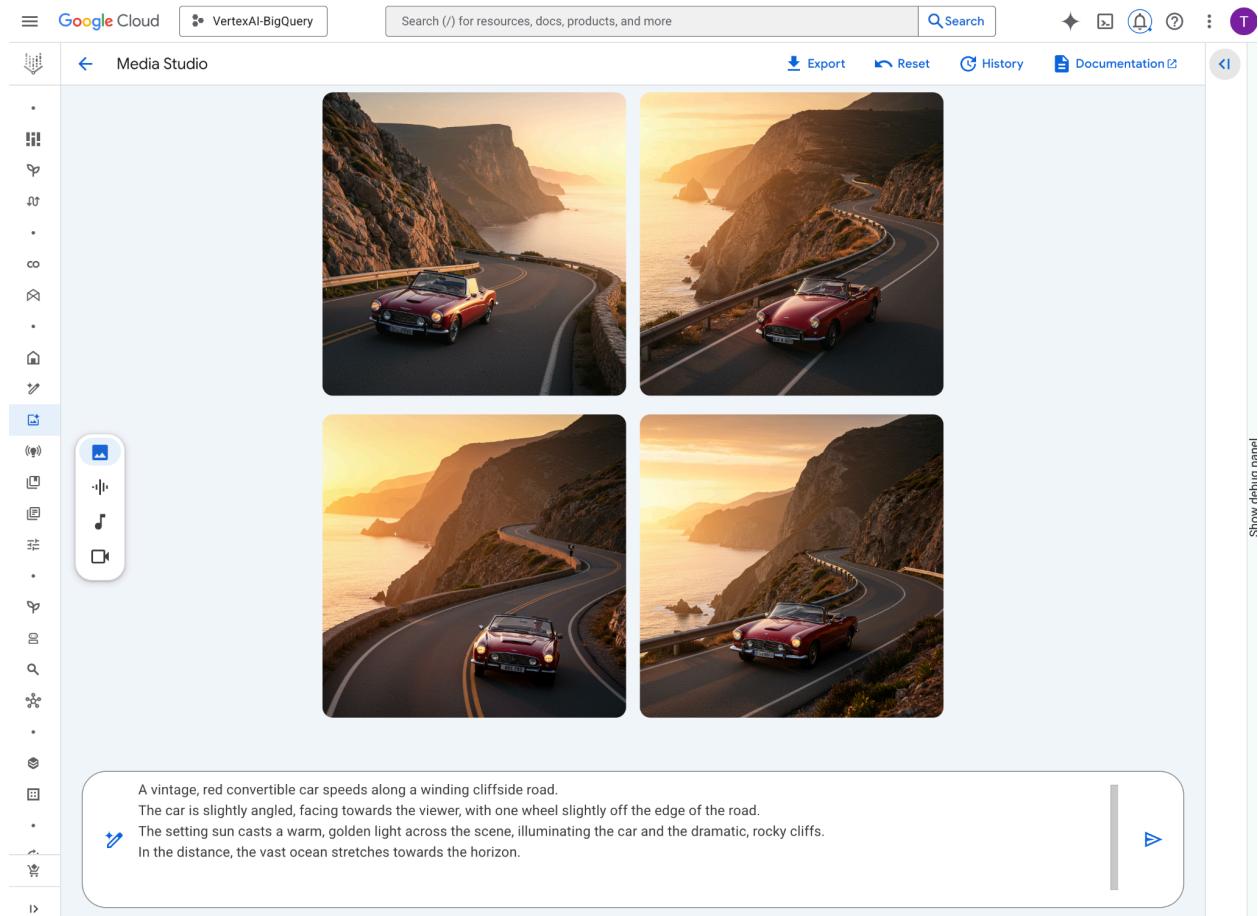


## Photorealism and prompt understanding

Photorealism: Imagen 3 is capable of generating photorealistic, lifelike images with fewer distracting visual artifacts than our previous models. This increased quality is especially prevalent when generating images of multiple people, animals, and landscapes.

Prompt adherence: It's also better at understanding natural language and the intent behind your prompts. Thus, they can be written in everyday language and can include specific details including camera angles, lens types, lighting, and stylistic features.

Sample prompt : *A vintage, red convertible car speeds along a winding cliffside road. The car is slightly angled, facing towards the viewer, with one wheel slightly off the edge of the road. The setting sun casts a warm, golden light across the scene, illuminating the car and the dramatic, rocky cliffs. In the distance, the vast ocean stretches towards the horizon.*



## Better text rendering

Imagen 3 also does a great job accurately rendering small words and phrases in images. This could be particularly useful for generating business cards, posters, banners, product designs, or greeting cards.

Sample prompt: *a beige baseball cap with 'good vibes' written on top in white bubbly stitched letters that are outlined in neon green, display it against a pool background with palm trees and pool floats*

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Media Studio

Show debug panel

a beige baseball cap with 'good vibes' written on top in white bubbly stitched letters that are outlined in neon green, display it against a pool background with palm trees and pool floats