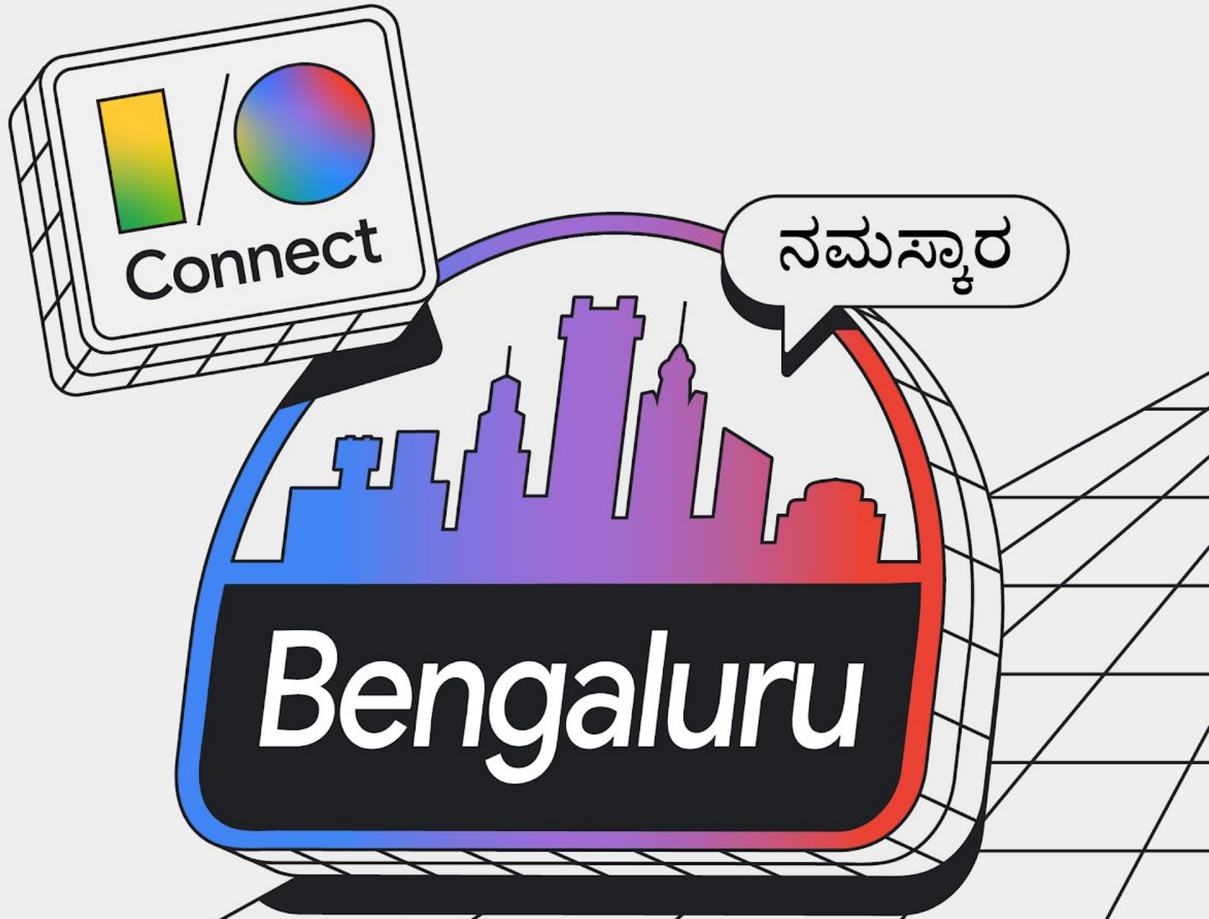
Google I/O Connect

Welcome

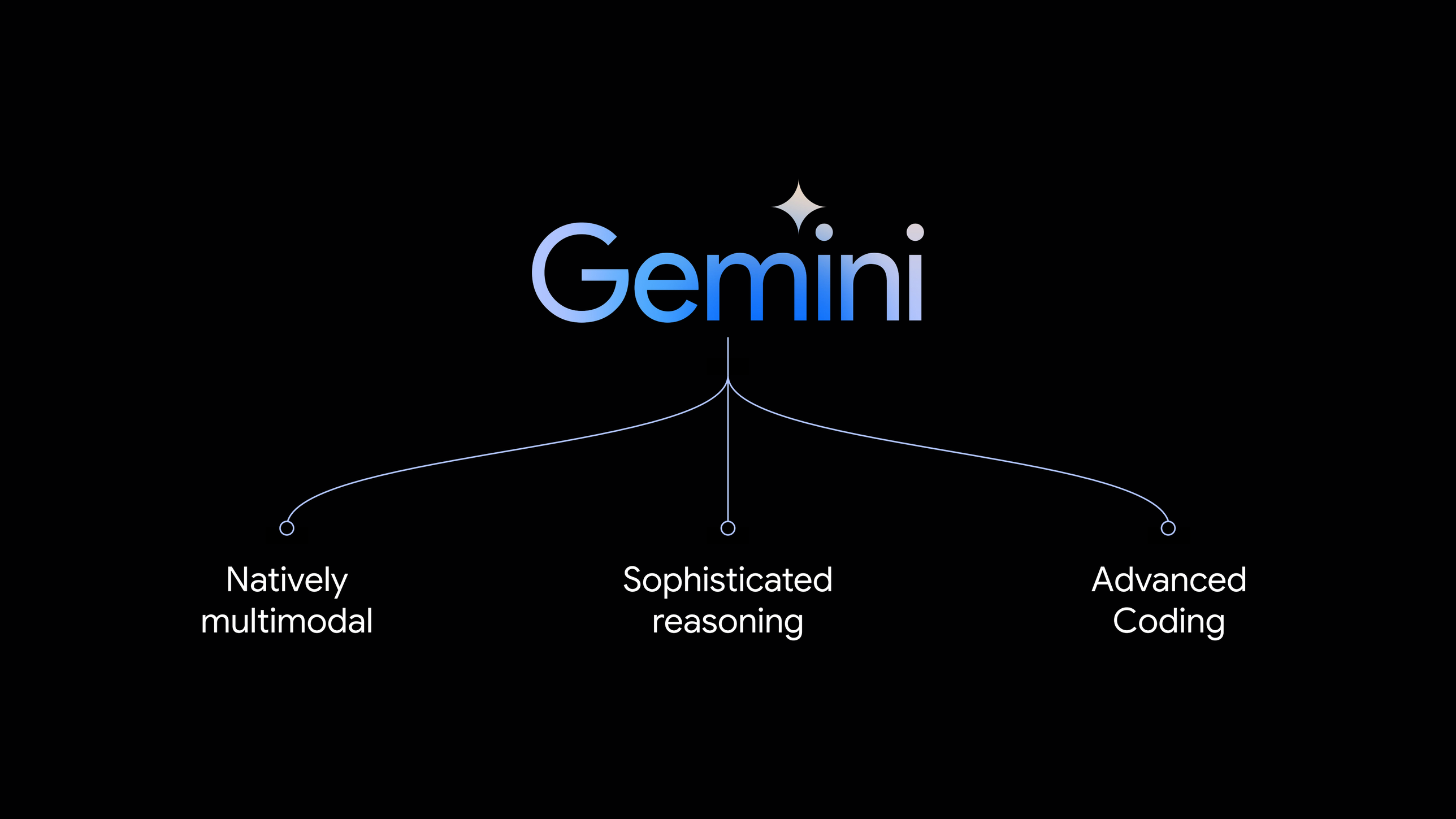


Google IO Connect

Gemini Driven Real World Use Cases

Aashi Dutt
She / her

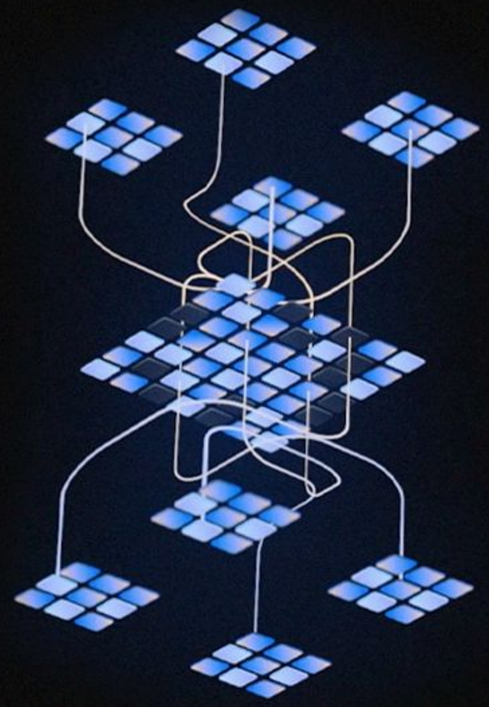
Google I/O Connect Bengaluru


Gemini
Natively multimodal
Sophisticated reasoning
Advanced Coding

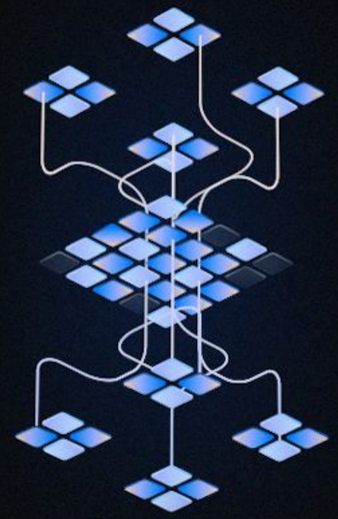
Gemini is designed to be natively multimodal

Built from the ground up for multimodality, seamlessly combining and understanding text, code, images, audio, and video.

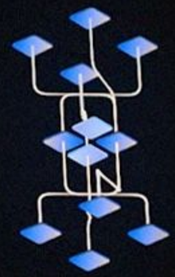
Gemini is also the most flexible model Google ever built



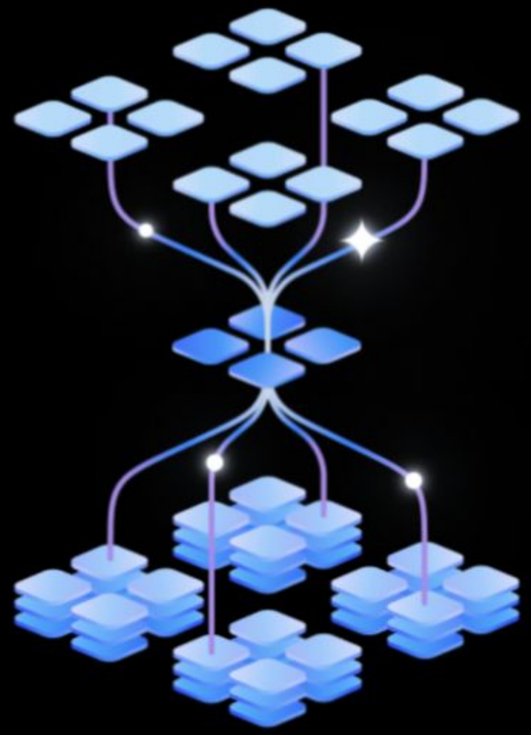
Ultra 1.0



Pro 1.5



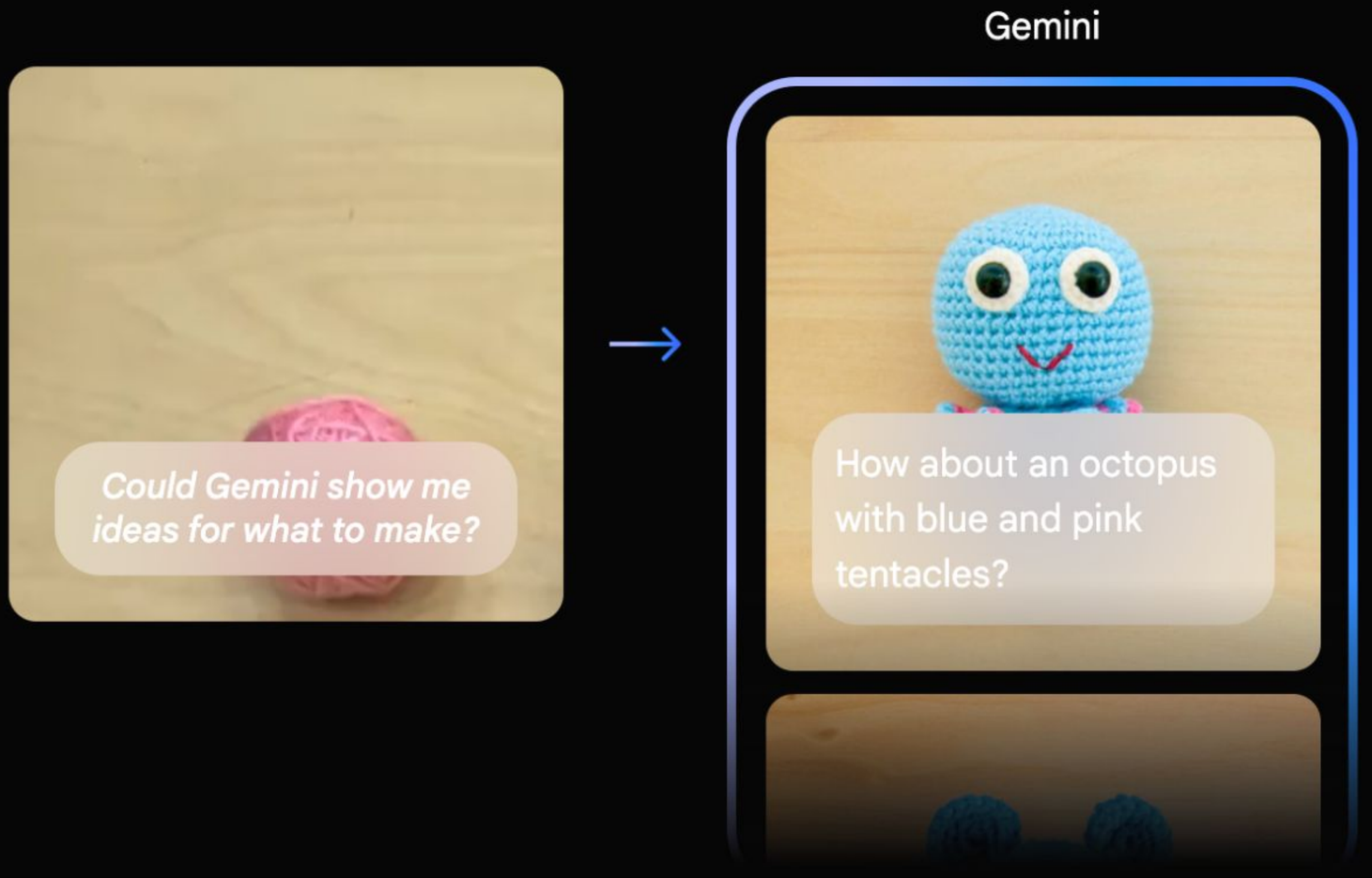
Nano 1.0



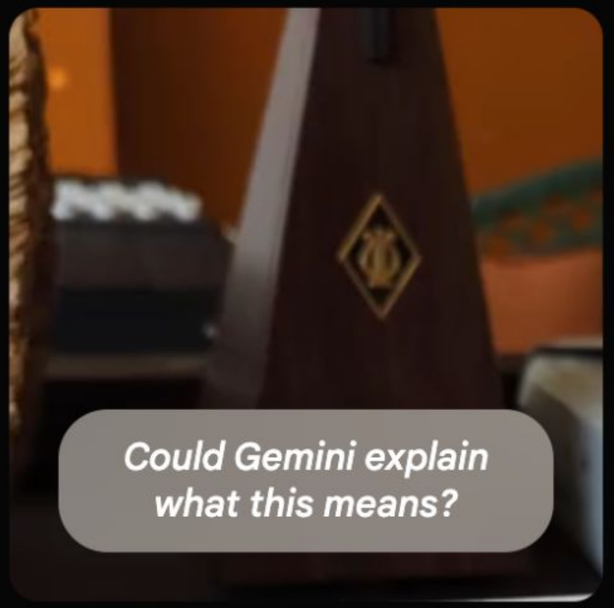
Flash 1.5

Light weight model optimized for speed and efficiency

Gemini models can generate text and images, combined.



Gemini models can understand and perform tasks involving several different written languages.

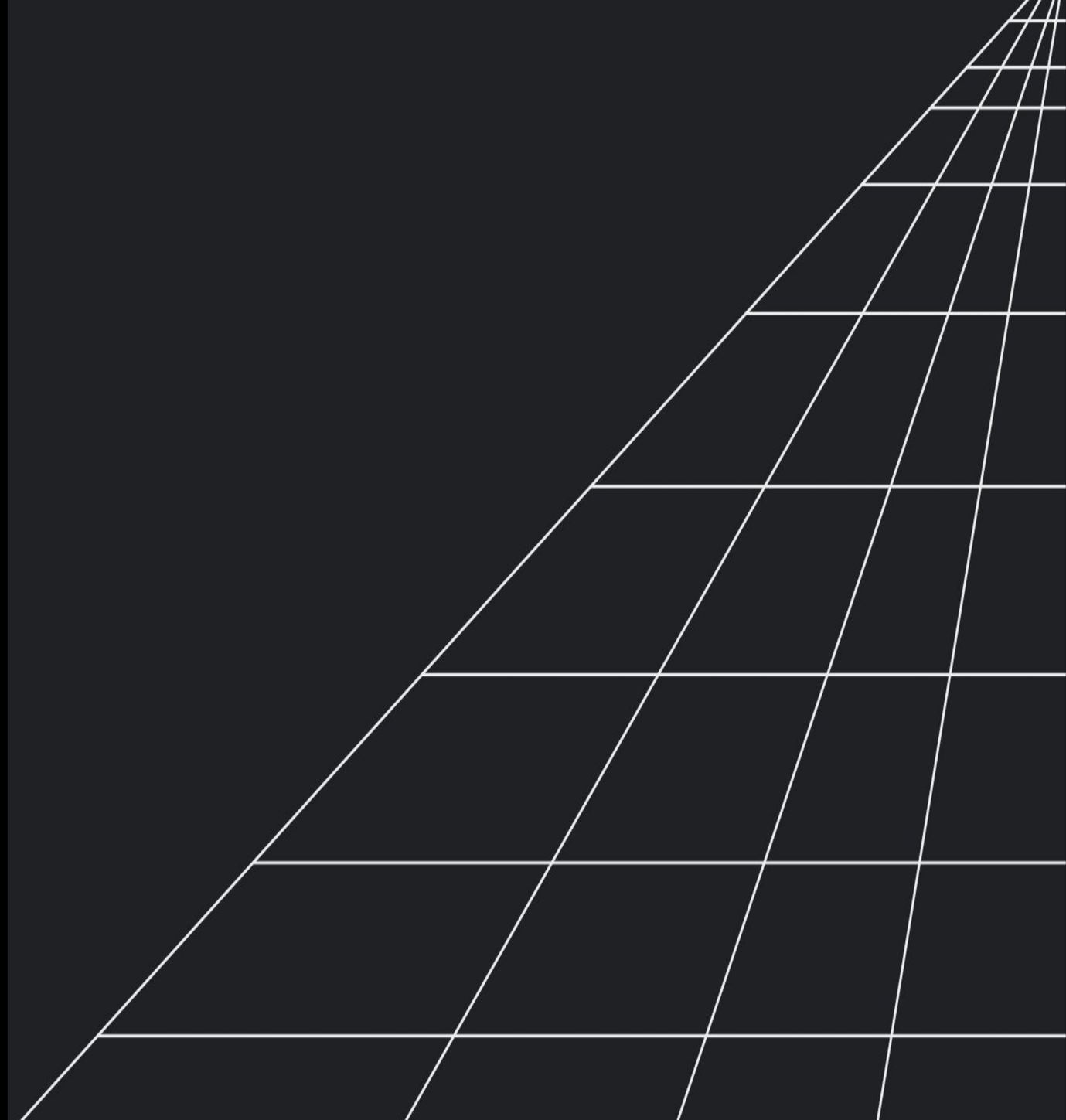


Gemini

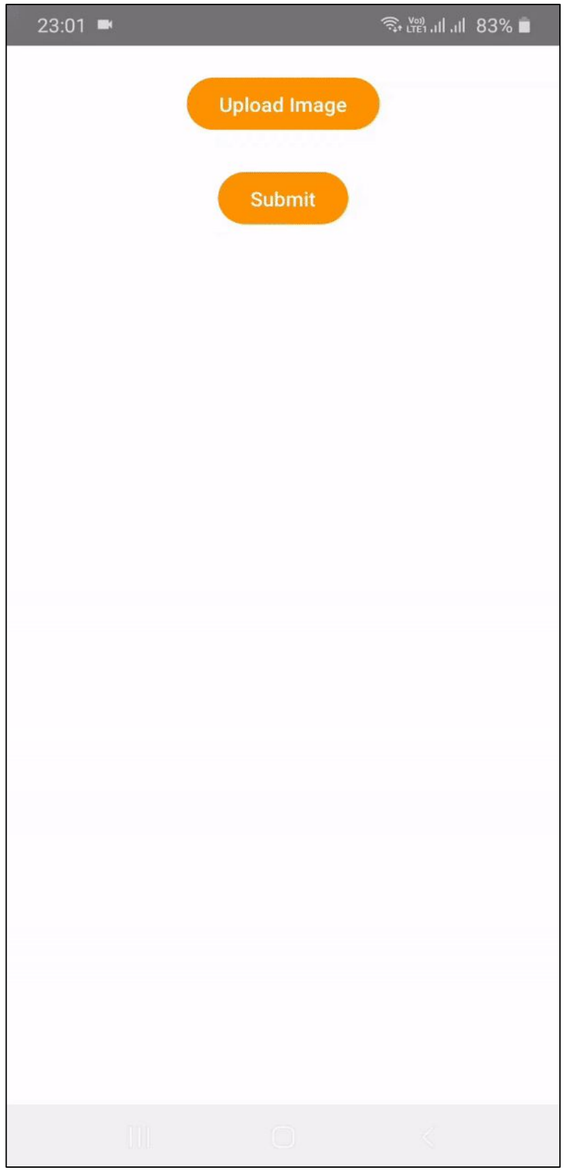
I see the time signature is 6/8. This means there are 6 eighth notes in each measure.

The dynamic marking is piano, which means to play softly. Andante grazioso means to play at a graceful walking pace.

Gemini for Healthcare



💊 PharmaScan : Extract medicine details using Gemini



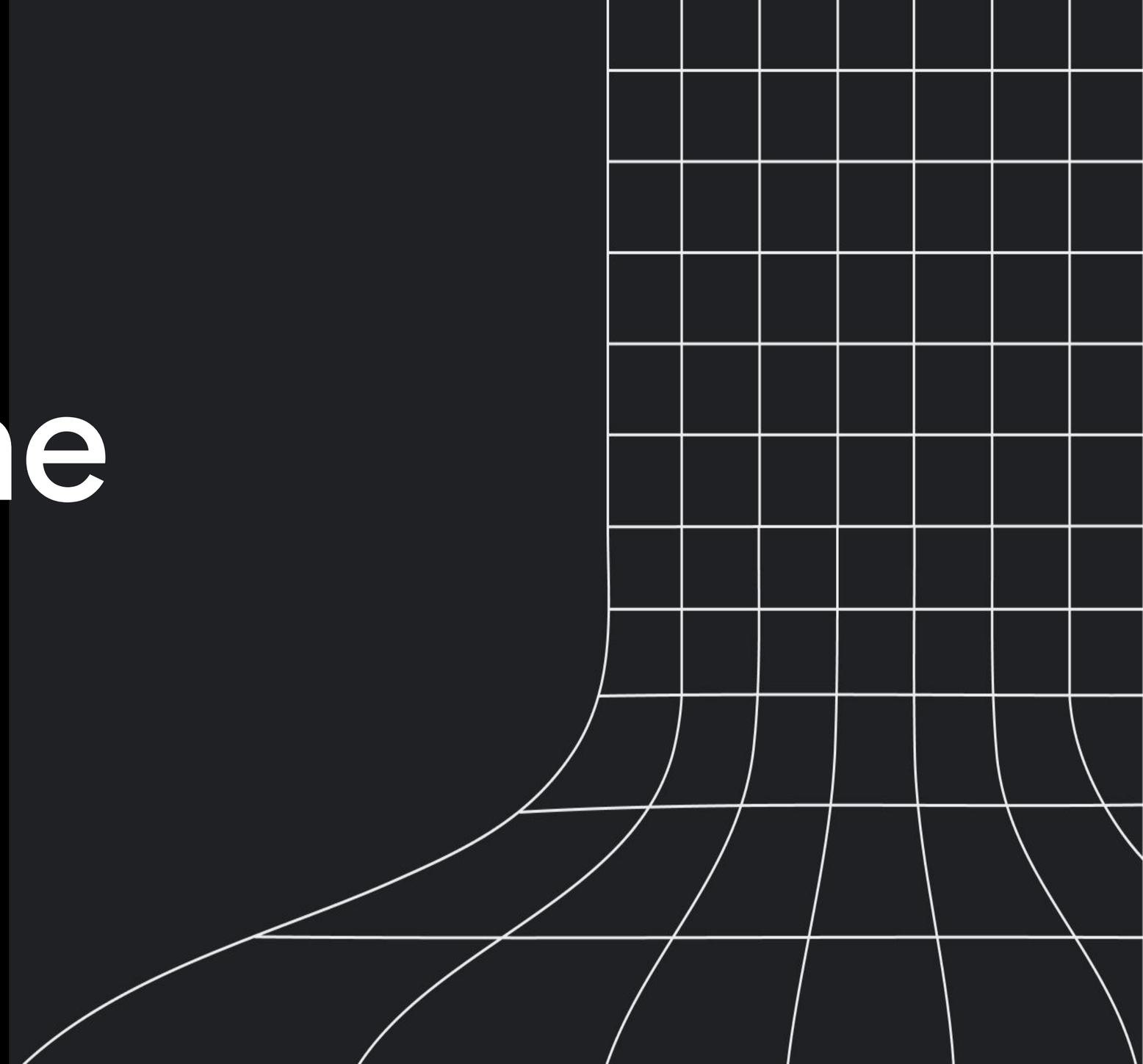
PharmaScan is an Android application that leverages the Gemini Pro Vision model to identify medicines and provide their details such as usage, dosage, diagnosis, etc. on the go.

Check out on GitHub:
https://github.com/NSTiwari/Medicine-Scan-with-Gemini

Try it on Hugging Face 🤗:
https://huggingface.co/spaces/Aashi/Medicine-Prescription-with-Gemini

Watch the complete demo on YouTube:
https://www.youtube.com/watch?v=Q06ABLwFGTQ

Behind the Code



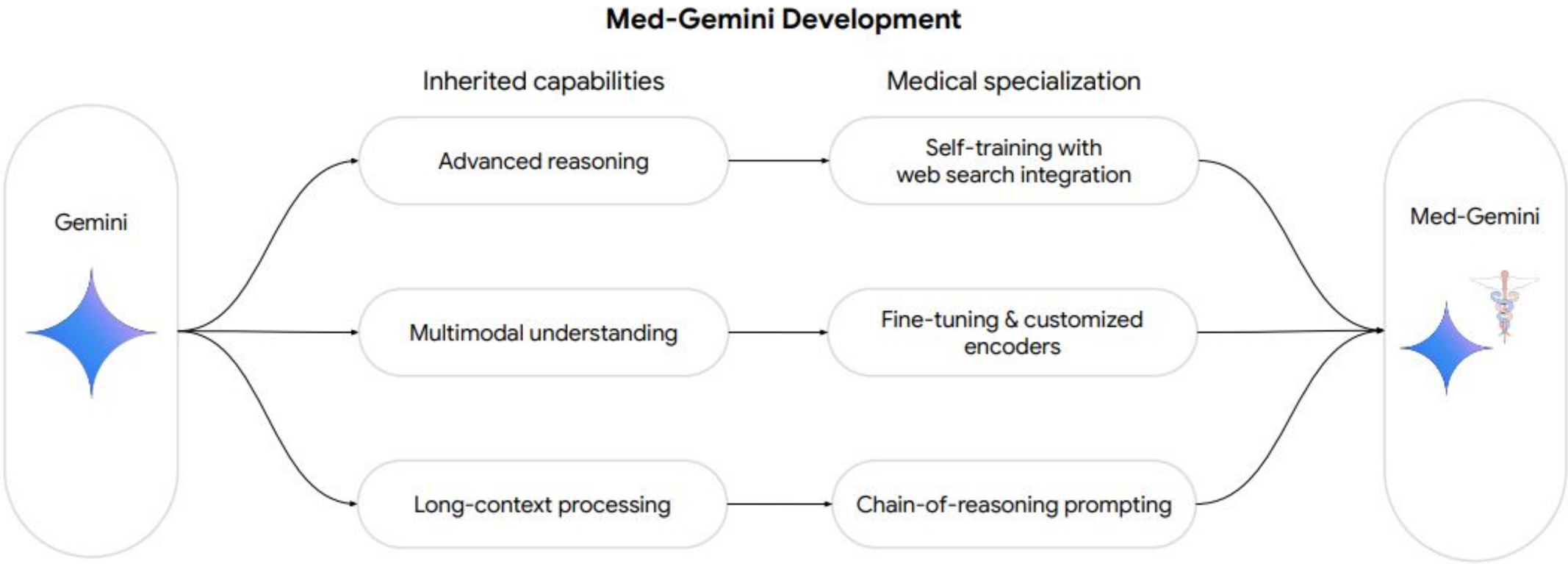
Android SDK

```
// Configure API key and model.
val generativeModel = GenerativeModel(
    modelName = "gemini-1.0-pro-vision-latest",
    apiKey = BuildConfig.apiKey
)

// Pass the input image and text prompt.
val inputImage: Bitmap = // ...
val inputContent = content() {
  image(inputImage)
  text("Write a prescription in pointer format ordered by name of medicine,
symptoms, primary diagnosis, usage and dosage of medicine in the image?")
}

// Generate response.
val response = generativeModel.generateContent(inputContent)
print(response.text)
```

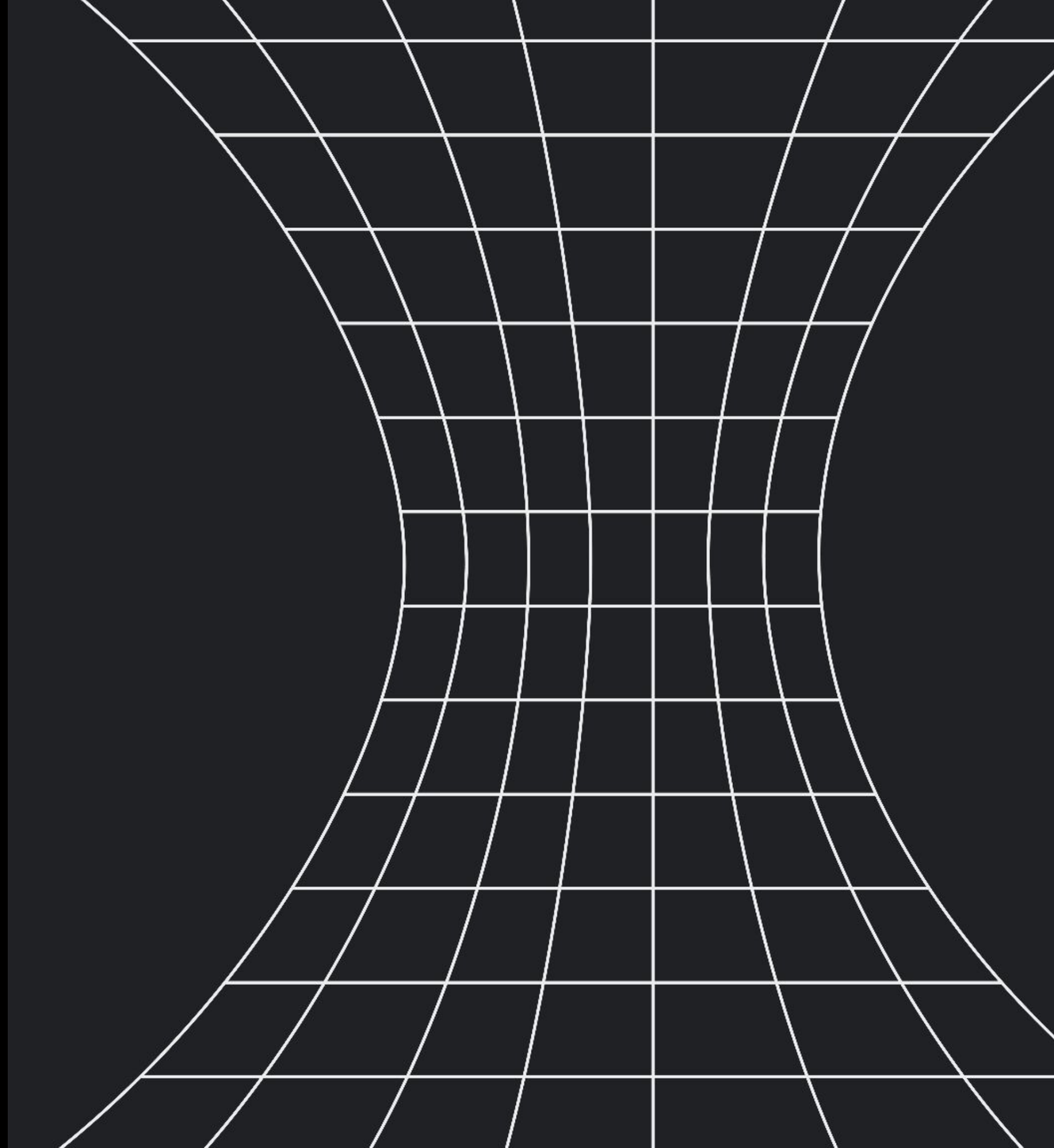
Python

```
# Install the Gen AI SDK.
!pip install -q -U google-generativeai

import google.generativeai as genai
from PIL import Image

# Configure the API key.
genai.configure(api_key=API_KEY)

# Configure the model.
model = genai.GenerativeModel(model_name='gemini-pro-vision’)

# Load the image.
img = Image.open('/content/image.jpg’)

prompt = "Write a prescription in pointer format ordered by name of medicine, symptoms,
primary diagnosis, usage and dosage of medicine in the image?"

# Give the input image and prompt, get response.
response = model.generate_content([prompt, img], stream=True)

# Print the response.
response.resolve()
print(response.text)
```

Gemini in Medicine



Gemini for Farmers



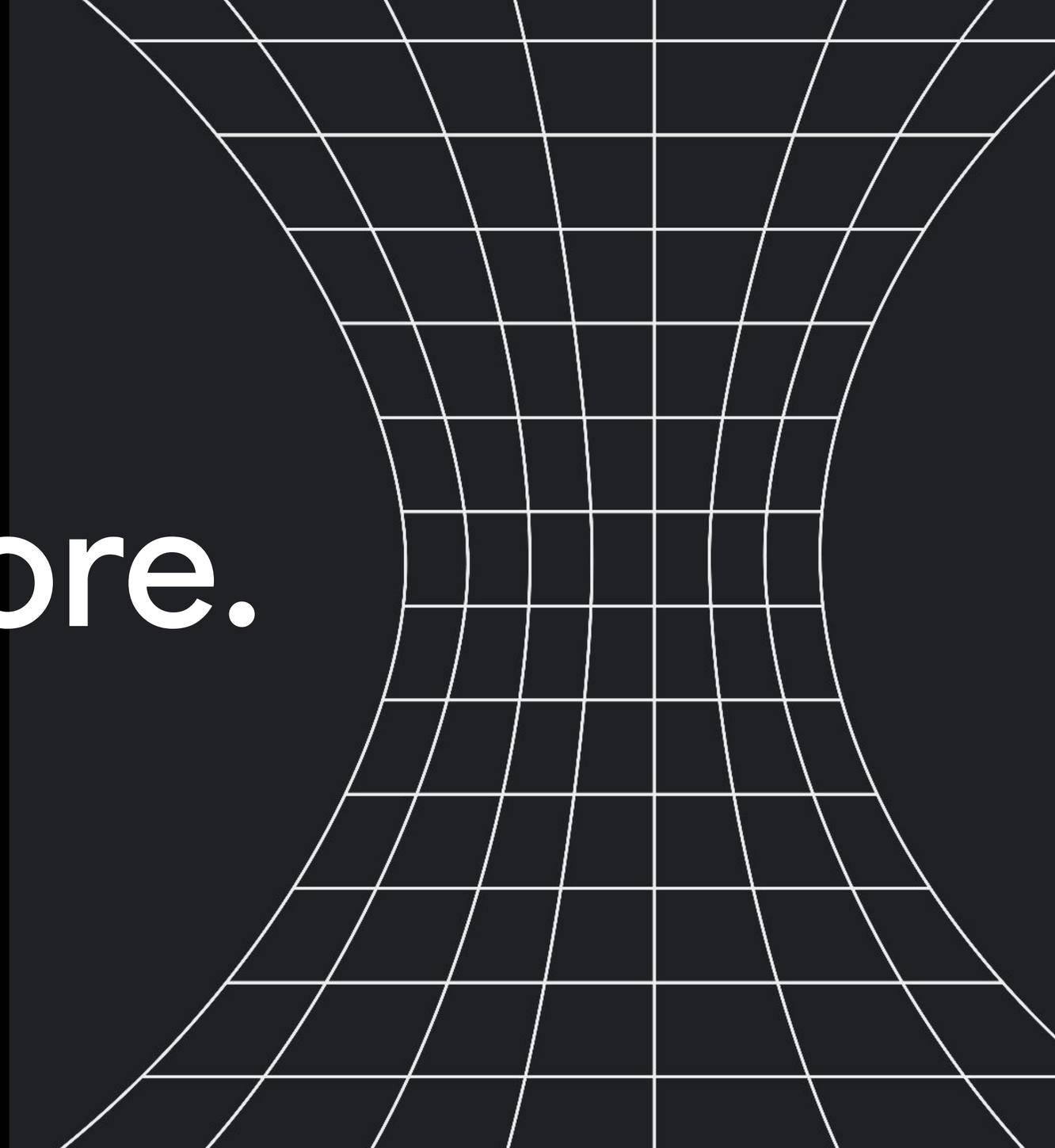
👩‍🌾 FarmScan : Farmer’s Digital Assistance built with Gemini

FarmScan is an implementation of the Google Pro Vision model API on Android to recognize the freshness of fruits/vegetables, their approximate market value, shelf life, and a lot more insights to help farms plan the cultivation/selling of crops better.

Check out on GitHub:
https://github.com/NSTiwari/FarmScan-using-Gemini

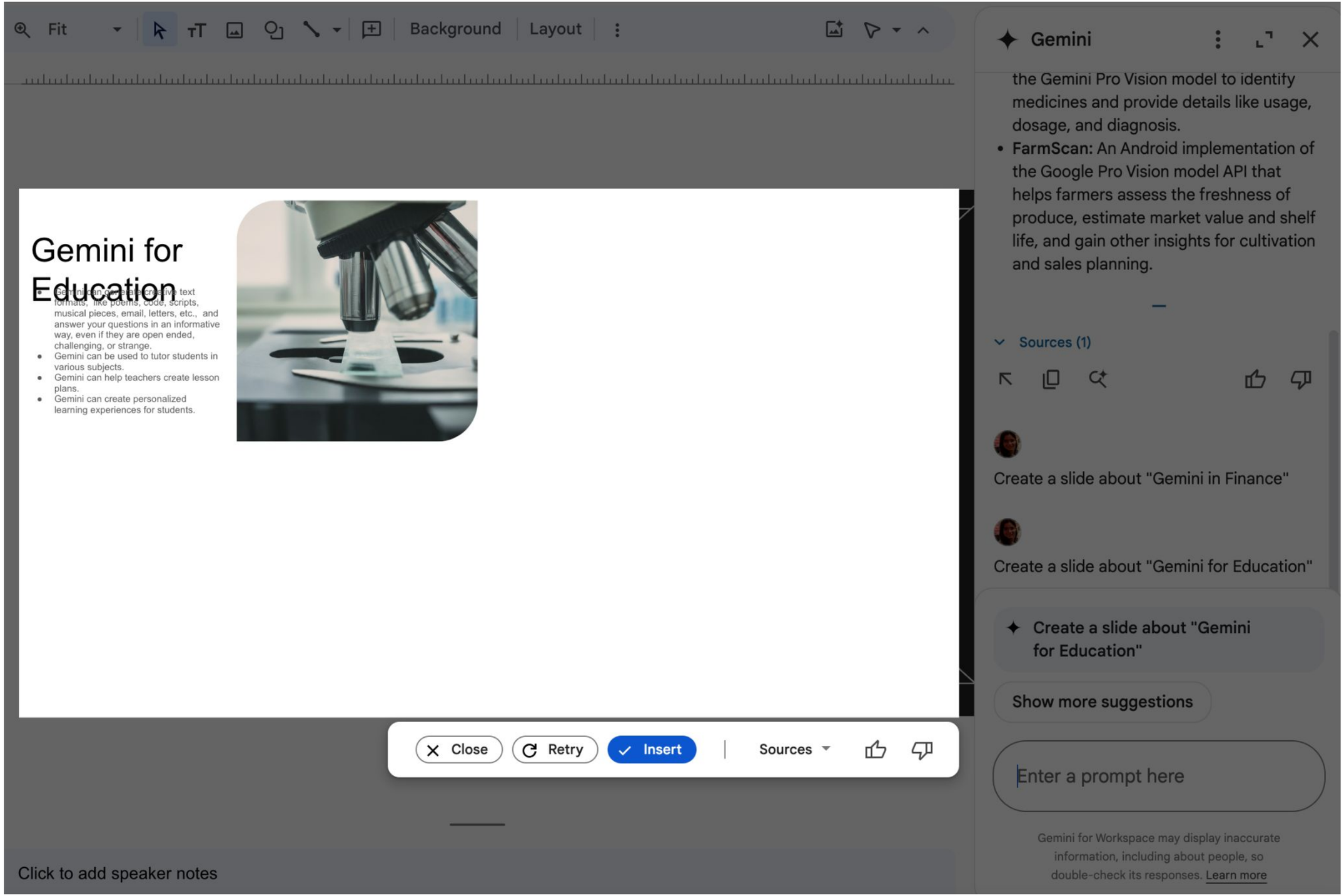
Try it on Hugging Face 🤗:
https://huggingface.co/spaces/Aashi/FarmScan

We have more.



Gemini helps you in daily life

- Content Generation
- Gmail Q & A
- Code Generation
- Ask Photos (to be rolled out)


Fit
Background
Layout
Gemini
the Gemini Pro Vision model to identify medicines and provide details like usage, dosage, and diagnosis.
• FarmScan: An Android implementation of the Google Pro Vision model API that helps farmers assess the freshness of produce, estimate market value and shelf life, and gain other insights for cultivation and sales planning.
Sources (1)
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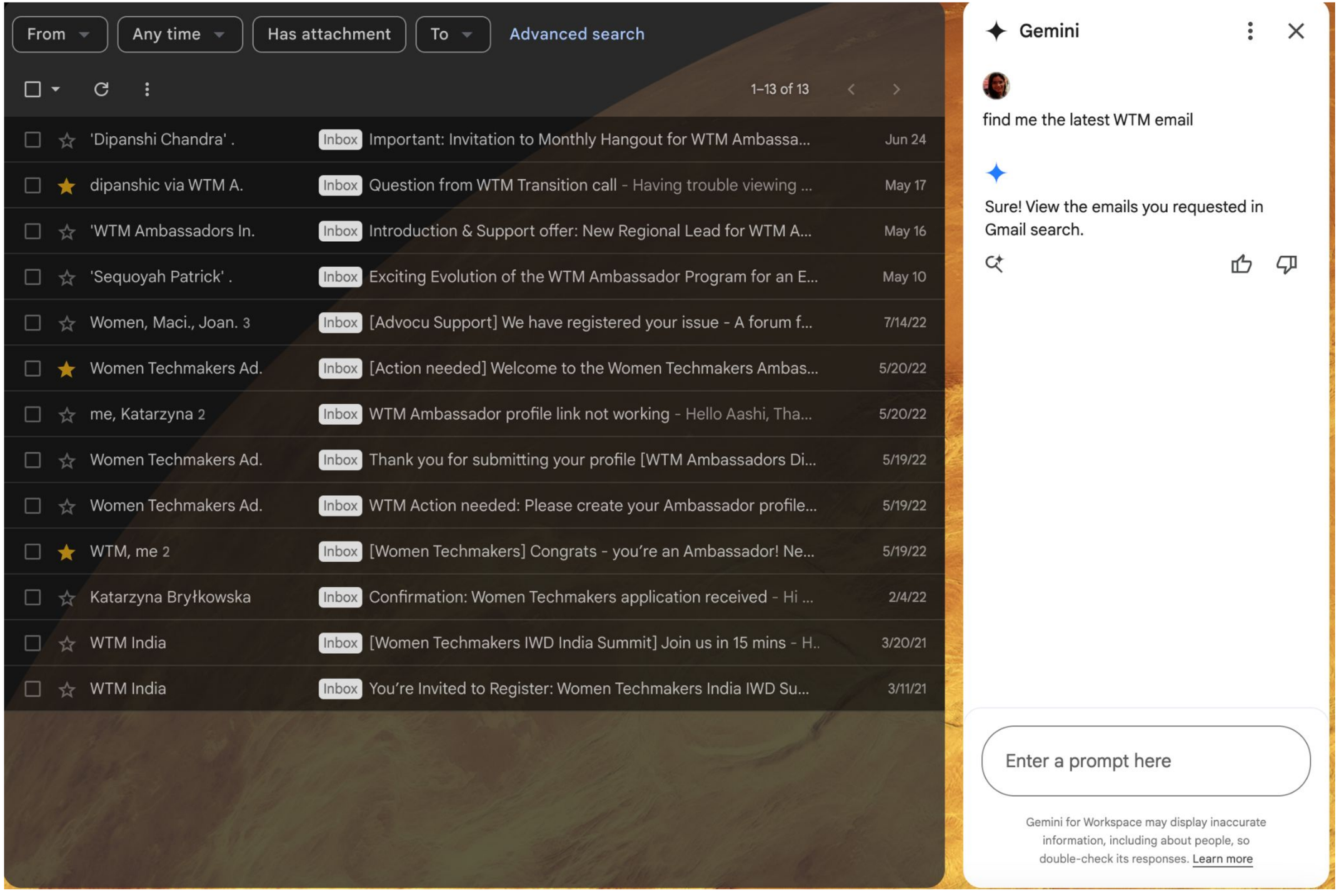
• Gemini can be used to tutor students in various subjects.
• Gemini can help teachers create lesson plans.
• Gemini can create personalized learning experiences for students.
Close
Retry
Insert
Sources
Click to add speaker notes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Women, Maci., Joan. 3 Inbox [Advocu Support] We have registered your issue - A forum f... 7/14/22
Women Techmakers Ad. Inbox [Action needed] Welcome to the Women Techmakers Ambas... 5/20/22
me, Katarzyna 2 Inbox WTM Ambassador profile link not working - Hello Aashi, Tha... 5/20/22
Women Techmakers Ad. Inbox Thank you for submitting your profile [WTM Ambassadors Di... 5/19/22
Women Techmakers Ad. Inbox WTM Action needed: Please create your Ambassador profile... 5/19/22
WTM, me 2 Inbox [Women Techmakers] Congrats - you're an Ambassador! Ne... 5/19/22
Katarzyna Bryłkowska Inbox Confirmation: Women Techmakers application received - Hi ... 2/4/22
WTM India Inbox [Women Techmakers IWD India Summit] Join us in 15 mins - H.. 3/20/21
WTM India Inbox You're Invited to Register: Women Techmakers India IWD Su... 3/11/21
Gemini
find me the latest WTM email
Sure! View the emails you requested in Gmail search.
Enter a prompt here
Gemini for Workspace may display inaccurate information, including about people, so double-check its responses. Learn more

Gemini_demo.ipynb ☆

File Edit View Insert Runtime Tools Help Last edited on 2 July

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+ Code + Text Connect Gemini

```
!pip install -q -U google-generativeai
```

```
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```

```
[ ] from google.colab import userdata
    import google.generativeai as genai
    from PIL import Image
```

```
[ ] API_KEY = userdata.get('gemini')

    # Configure the API key.
    genai.configure(api_key=API_KEY)
```

```
[ ] # List all available models.
    for m in genai.list_models():
      if 'generateContent' in m.supported_generation_methods:
        print(m.name)
```

```
models/gemini-1.0-pro
models/gemini-1.0-pro-001
models/gemini-1.0-pro-latest
models/gemini-1.0-pro-vision-latest
models/gemini-1.5-flash
models/gemini-1.5-flash-001
models/gemini-1.5-flash-latest
models/gemini-1.5-pro
models/gemini-1.5-pro-001
models/gemini-1.5-pro-latest
models/gemini-pro
models/gemini-pro-vision
```

Gemini Pro 1.0 (Text input)

Gemini

Aashi Dutt

Show me a list of publicly available datasets

Gemini

There are a number of publicly available datasets available in Google Colab. To access them, simply navigate to the left sidebar and click on "Files". Then, click on the folder icon with a down arrow, which will open up a tab called "Sample Data". In this tab, you will find a number of datasets such as:

- California Housing
- MNIST
- Shakespeare

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Gemini access in Colab is available to unsubscribed users for a limited time only. Upgrade to Colab Pro

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Too much info?

Get all resources here 👉

Source:
huyenchip.com/2024/03/14/ai-oss.html

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Thank you

Aashi Dutt
She / her

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