

✧ 安裝套件

```
1 !pip install gradio diffusers accelerate
```

```
Requirement already satisfied: pydantic<2.12,>=2.0 in /usr/local/lib/python3.12/dist-packages (from gradio) (2.11.9)
Requirement already satisfied: pydub in /usr/local/lib/python3.12/dist-packages (from gradio) (0.25.1)
Requirement already satisfied: python-multipart>=0.0.18 in /usr/local/lib/python3.12/dist-packages (from gradio) (0.0.20)
Requirement already satisfied: pyyaml<7.0,>=5.0 in /usr/local/lib/python3.12/dist-packages (from gradio) (6.0.3)
Requirement already satisfied: ruff>=0.9.3 in /usr/local/lib/python3.12/dist-packages (from gradio) (0.13.2)
Requirement already satisfied: safehttpx<0.2.0,>=0.1.6 in /usr/local/lib/python3.12/dist-packages (from gradio) (0.1.6)
Requirement already satisfied: semantic-version~=2.0 in /usr/local/lib/python3.12/dist-packages (from gradio) (2.10.0)
Requirement already satisfied: starlette<1.0,>=0.40.0 in /usr/local/lib/python3.12/dist-packages (from gradio) (0.48.0)
Requirement already satisfied: tomkit<0.14.0,>=0.12.0 in /usr/local/lib/python3.12/dist-packages (from gradio) (0.13.3)
Requirement already satisfied: typer<1.0,>=0.12 in /usr/local/lib/python3.12/dist-packages (from gradio) (0.19.2)
Requirement already satisfied: typing-extensions~=4.0 in /usr/local/lib/python3.12/dist-packages (from gradio) (4.15.0)
Requirement already satisfied: uvicorn>=0.14.0 in /usr/local/lib/python3.12/dist-packages (from gradio) (0.37.0)
Requirement already satisfied: fsspec in /usr/local/lib/python3.12/dist-packages (from gradio-client==1.13.3->gradio) (2025.3.0)
Requirement already satisfied: websockets<16.0,>=13.0 in /usr/local/lib/python3.12/dist-packages (from gradio-client==1.13.3->gradio) (15.0.1)
Requirement already satisfied: importlib_metadata in /usr/local/lib/python3.12/dist-packages (from diffusers) (8.7.0)
Requirement already satisfied: filelock in /usr/local/lib/python3.12/dist-packages (from diffusers) (3.19.1)
Requirement already satisfied: regex!=2019.12.17 in /usr/local/lib/python3.12/dist-packages (from diffusers) (2024.11.6)
Requirement already satisfied: requests in /usr/local/lib/python3.12/dist-packages (from diffusers) (2.32.4)
Requirement already satisfied: safetensors>=0.3.1 in /usr/local/lib/python3.12/dist-packages (from diffusers) (0.6.2)
Requirement already satisfied: psutil in /usr/local/lib/python3.12/dist-packages (from accelerate) (5.9.5)
Requirement already satisfied: torch>=2.0.0 in /usr/local/lib/python3.12/dist-packages (from accelerate) (2.8.0+cu126)
Requirement already satisfied: idna>=2.8 in /usr/local/lib/python3.12/dist-packages (from anyio<5.0,>=3.0->gradio) (3.10)
Requirement already satisfied: sniffio>=1.1 in /usr/local/lib/python3.12/dist-packages (from anyio<5.0,>=3.0->gradio) (1.3.1)
Requirement already satisfied: certifi in /usr/local/lib/python3.12/dist-packages (from httpx<1.0,>=0.24.1->gradio) (2025.8.3)
Requirement already satisfied: httpcore==1.* in /usr/local/lib/python3.12/dist-packages (from httpx<1.0,>=0.24.1->gradio) (1.0.9)
Requirement already satisfied: h11>=0.16 in /usr/local/lib/python3.12/dist-packages (from httpcore==1.*->httpx<1.0,>=0.24.1->gradio) (0.16.0)
Requirement already satisfied: tqdm>=4.42.1 in /usr/local/lib/python3.12/dist-packages (from huggingface-hub<2.0,>=0.33.5->gradio) (4.67.1)
Requirement already satisfied: hf-xet<2.0.0,>=1.1.3 in /usr/local/lib/python3.12/dist-packages (from huggingface-hub<2.0,>=0.33.5->gradio) (1.1.10)
Requirement already satisfied: python-dateutil>=2.8.2 in /usr/local/lib/python3.12/dist-packages (from pandas<3.0,>=1.0->gradio) (2.9.0.post0)
Requirement already satisfied: pytz>=2020.1 in /usr/local/lib/python3.12/dist-packages (from pandas<3.0,>=1.0->gradio) (2025.2)
Requirement already satisfied: tzdata>=2022.7 in /usr/local/lib/python3.12/dist-packages (from pandas<3.0,>=1.0->gradio) (2025.2)
Requirement already satisfied: annotated-types>=0.6.0 in /usr/local/lib/python3.12/dist-packages (from pydantic<2.12,>=2.0->gradio) (0.7.0)
Requirement already satisfied: pydantic-core==2.33.2 in /usr/local/lib/python3.12/dist-packages (from pydantic<2.12,>=2.0->gradio) (2.33.2)
Requirement already satisfied: typing-inspection>=0.4.0 in /usr/local/lib/python3.12/dist-packages (from pydantic<2.12,>=2.0->gradio) (0.4.2)
```



```
Requirement already satisfied: shellingsham>=1.2.0 in /usr/local/lib/python3.12/dist-packages (from tuner<1.0,>=0.12->gradio) (1.5.4)
```

```
Requirement already satisfied: sniffingham<1.5.0 in /usr/local/lib/python3.12/dist-packages (from typer<1.0,>=0.12->gradio) (1.5.4)
Requirement already satisfied: rich>=10.11.0 in /usr/local/lib/python3.12/dist-packages (from typer<1.0,>=0.12->gradio) (13.9.4)
Requirement already satisfied: zipp>=3.2.0 in /usr/local/lib/python3.12/dist-packages (from importlib_metadata->diffusers) (3.23.0)
Requirement already satisfied: charset_normalizer<4,>=2 in /usr/local/lib/python3.12/dist-packages (from requests->diffusers) (3.4.3)
Requirement already satisfied: urllib3<3,>=1.21.1 in /usr/local/lib/python3.12/dist-packages (from requests->diffusers) (2.5.0)
```

▽ gradio 基本操作

```
1 def myadd(n1,n2):
2     return n1+n2, n1-n2, n1*n2, n1/n2
```

```
1 import gradio as gr # 載入gradio套件
2
3 iface = gr.Interface(
4     fn=myadd, # 處理函式名稱
5     inputs=['number','number'], # 輸入資料格式
6     outputs=['number','number','number','number'] # 輸出資料格式
7 )
8
9 iface.launch(share=True, debug=True) # 啟動gradio介面，啟動外部連結
```

Colab notebook detected. This cell will run indefinitely so that you can see errors and logs. To turn off, set debug=False in launch().

* Running on public URL: <https://215a5aff26b9fdbe8e.gadio.live>

Running on public URL: https://25082d712605f4060cc16_4a1071117c

This share link expires in 1 week. For free permanent hosting and GPU upgrades, run ``gradio deploy`` from the terminal in the working directory to deploy to Hugging Face Spaces (<https://huggingface.co/spaces>)

Flag

透過 API 使用  · 使用 Gradio 建構  · 設定 

```
Keyboard interruption in main thread... closing server.  
Killing tunnel 127.0.0.1:7860 > https://215c5aff26b0f4db0e.gladic.live
```

Killing tunnel 127.0.0.1:7000 < > <https://215a3a1f200910de6e.glad10.live>

```
1 def myadd(first_name,last_name):
2     return first_name+last_name
```

```
1 import gradio as gr # 載入gradio套件
2
3 iface = gr.Interface(
4     fn=myadd, # 處理函式名稱
5     inputs=['text','text'], # 輸入資料格式
6     outputs='text' # 輸出資料格式
7 )
8
9 iface.launch(share=True, debug=True) # 啟動gradio介面, 啟動外部連結
```

Colab notebook detected. This cell will run indefinitely so that you can see errors and logs. To turn off, set debug=False in launch().

* Running on public URL: <https://b0d13065aca7dca562.gradio.live>

This share link expires in 1 week. For free permanent hosting and GPU upgrades, run `gradio deploy` from the terminal in the working directory to deploy to Hugging Face Spaces (<https://huggingface.co/spaces/gradio/faq>)

first_name

Dean

last_name

Liu

output

Dean Liu

Flag

Clear

Submit

透過 API 使用 🍷 · 使用 Gradio 建構 🏗️ · 設定 ⚙️

Keyboard interruption in main thread... closing server.
Killing tunnel 127.0.0.1:7860 <> <https://b0d13065aca7dca562.gradio.live>

使用 stable diffusion pipeline 以及 自定義函數 透過 gradio介面操作 stable diffusion pipeline

```
1 from diffusers import StableDiffusionPipeline # 載入stable diffusion pipeline
2 import torch
```

```
3
4 model_id = "SG161222/Realistic_Vision_V6.0_B1_noVAE" # 選擇SD模型
5 pipe = StableDiffusionPipeline.from_pretrained(model_id, torch_dtype=torch.float16)
6 pipe = pipe.to("cuda")
```

/usr/local/lib/python3.12/dist-packages/huggingface_hub/utils/_auth.py:94: UserWarning:

The secret `HF_TOKEN` does not exist in your Colab secrets.

To authenticate with the Hugging Face Hub, create a token in your settings tab (<https://huggingface.co/settings/tokens>), set it as secret in your Google Colab and restart your session. You will be able to reuse this secret in all of your notebooks.

Please note that authentication is recommended but still optional to access public models or datasets.

```
warnings.warn(
model_index.json: 100%                               624/624 [00:00<00:00, 65.4kB/s]

Fetching 15 files: 100%                             15/15 [05:05<00:00, 18.60s/it]

preprocessor_config.json: 100%                       520/520 [00:00<00:00, 8.40kB/s]

special_tokens_map.json: 100%                       472/472 [00:00<00:00, 12.5kB/s]

scheduler_config.json: 100%                         374/374 [00:00<00:00, 17.3kB/s]

merges.txt:      525k/? [00:00<00:00, 6.36MB/s]

config.json: 100%                               560/560 [00:00<00:00, 12.4kB/s]

config.json:      4.58k/? [00:00<00:00, 97.7kB/s]

text_encoder/pytorch_model.bin: 100%               492M/492M [02:33<00:00, 4.99MB/s]

config.json:      1.78k/? [00:00<00:00, 30.2kB/s]

safety_checker/pytorch_model.bin: 100%             1.22G/1.22G [04:59<00:00, 7.93MB/s]

vocab.json:      1.06M/? [00:00<00:00, 3.50MB/s]

tokenizer_config.json: 100%                       737/737 [00:00<00:00, 9.70kB/s]

config.json: 100%                               601/601 [00:00<00:00, 20.6kB/s]

UNET/diffusion_pytorch_model.bin: 100%             3.44G/3.44G [05:05<00:00, 60.2MB/s]

vae/diffusion_pytorch_model.bin: 100%             335M/335M [01:17<00:00, 5.16MB/s]

Loading pipeline components...: 100%                7/7 [00:23<00:00, 4.75s/it]

`torch_dtype` is deprecated! Use `dtype` instead!
An error occurred while trying to fetch /root/.cache/huggingface/hub/models--SG161222--Realistic_Vision_V6.0_B1_noVAE/snapshots/9a857a696b9aabbf509073e0aa55ec8200b6ef7d/unet: Error no file nam
Defaulting to unsafe serialization. Pass `allow_pickle=False` to raise an error instead.
An error occurred while trying to fetch /root/.cache/huggingface/hub/models--SG161222--Realistic_Vision_V6.0_B1_noVAE/snapshots/9a857a696b9aabbf509073e0aa55ec8200b6ef7d/vae: Error no file nam
Defaulting to unsafe serialization. Pass `allow_pickle=False` to raise an error instead.
/usr/local/lib/python3.12/dist-packages/transformers/models/clip/feature_extraction_clip.py:30: FutureWarning: The class CLIPFeatureExtractor is deprecated and will be removed in version 5 of
warnings.warn(
```

```
1 def gen_image(prompt):
2     image = pipe(prompt).images[0]
3     return image
```

```
1 import gradio as gr
2
3 iface = gr.Interface(
```

```
4 fn=gen_image,  
5 inputs='text',  
6 outputs='image'  
7 )  
8  
9 iface.launch(share=True, debug=True)
```

Colab notebook detected. This cell will run indefinitely so that you can see errors and logs. To turn off, set debug=False in launch().

* Running on public URL: <https://0566b4fa5037ada32a.gradio.live>

This share link expires in 1 week. For free permanent hosting and GPU upgrades, run `gradio deploy` from the terminal in the working directory to deploy to Hugging Face Spaces (<https://huggingface.co/spaces/gradio/deplo>)

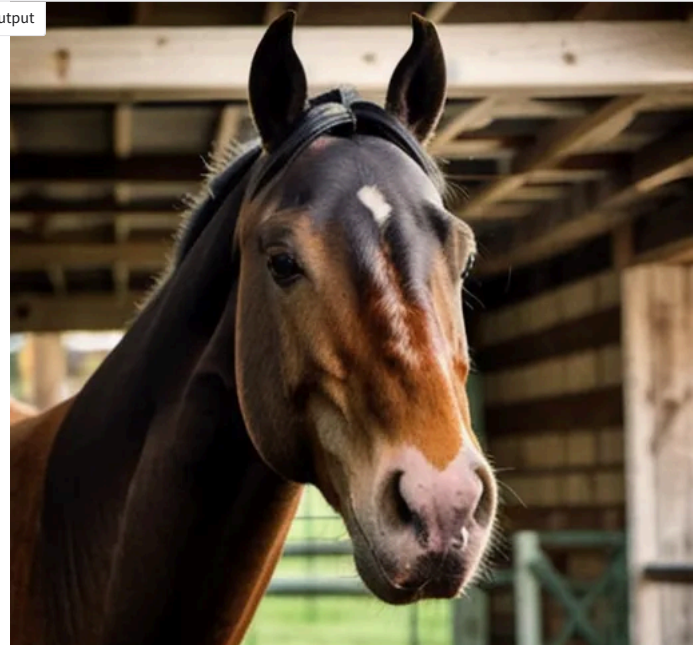
prompt

horse

Clear

Submit

output



100%

50/50 [00:08<00:00, 7.27it/s]

Keyboard interruption in main thread... closing server.

Killing tunnel 127.0.0.1:7860 <> <https://0566b4fa5037ada32a.gradio.live>

✓ Stable Diffusion from gradio.Interface.from_pipeline

```
1 from diffusers import StableDiffusionPipeline  
2 import gradio as gr  
3  
4 pipe = StableDiffusionPipeline.from_pretrained("SG161222/Realistic_Vision_V6.0_B1_noVAE", allow_pickle=False)  
5  
6 gr.Interface.from_pipeline(pipe).launch()
```

Keyword arguments {'allow_pickle': False} are not expected by StableDiffusionPipeline and will be ignored.

Loading pipeline components...: 100%

7/7 [00:10<00:00, 2.75s/it]

An error occurred while trying to fetch /root/.cache/huggingface/hub/models--SG161222--Realistic_Vision_V6.0_B1_noVAE/snapshots/9a857a696b9aabbf509073e0aa55ec8200b6ef7d/unet: Error no file na
Defaulting to unsafe serialization. Pass `allow_pickle=False` to raise an error instead.

An error occurred while trying to fetch /root/.cache/huggingface/hub/models--SG161222--Realistic_Vision_V6.0_B1_noVAE/snapshots/9a857a696b9aabbf509073e0aa55ec8200b6ef7d/vae: Error no file nam
Defaulting to unsafe serialization. Pass `allow_pickle=False` to raise an error instead.

/usr/local/lib/python3.12/dist-packages/transformers/models/clip/feature_extraction_clip.py:30: FutureWarning: The class CLIPFeatureExtractor is deprecated and will be removed in version 5 of
warnings.warn()

It looks like you are running Gradio on a hosted Jupyter notebook, which requires `share=True`. Automatically setting `share=True` (you can turn this off by setting `share=False` in `launch()`

Colab notebook detected. To show errors in colab notebook, set debug=True in launch()

* Running on public URL: <https://d4e8fc76b75c7755f9.gradio.live>

This share link expires in 1 week. For free permanent hosting and GPU upgrades, run `gradio deploy` from the terminal in the working directory to deploy to Hugging Face Spaces (<https://huggi>

StableDiffusionPipeline

Prompt

a cyberpunk cityscape at night, neon lights, rain, ultra-detailed

Negative prompt

low resolution, blurry, distorted, watermark

Number of inference steps

20

↻

1

500

Guidance scale

7.5

↻

1

20

Clear

Submit

Generated Image



