

```
!pip install diffusers transformers accelerate torch
```

```
Requirement already satisfied: diffusers in  
/usr/local/lib/python3.12/dist-packages (0.36.0)  
Requirement already satisfied: transformers in  
/usr/local/lib/python3.12/dist-packages (5.0.0)  
Requirement already satisfied: accelerate in  
/usr/local/lib/python3.12/dist-packages (1.12.0)  
Requirement already satisfied: torch in  
/usr/local/lib/python3.12/dist-packages (2.9.0+cu128)  
Requirement already satisfied: importlib_metadata in  
/usr/local/lib/python3.12/dist-packages (from diffusers) (8.7.1)  
Requirement already satisfied: filelock in  
/usr/local/lib/python3.12/dist-packages (from diffusers) (3.20.3)  
Requirement already satisfied: httpx<1.0.0 in  
/usr/local/lib/python3.12/dist-packages (from diffusers) (0.28.1)  
Requirement already satisfied: huggingface-hub<2.0,>=0.34.0 in  
/usr/local/lib/python3.12/dist-packages (from diffusers) (1.4.0)  
Requirement already satisfied: numpy in  
/usr/local/lib/python3.12/dist-packages (from diffusers) (2.0.2)  
Requirement already satisfied: regex!=2019.12.17 in  
/usr/local/lib/python3.12/dist-packages (from diffusers) (2025.11.3)  
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) (0.7.0)  
Requirement already satisfied: Pillow in  
/usr/local/lib/python3.12/dist-packages (from diffusers) (11.3.0)  
Requirement already satisfied: packaging>=20.0 in  
/usr/local/lib/python3.12/dist-packages (from transformers) (26.0)  
Requirement already satisfied: pyyaml>=5.1 in  
/usr/local/lib/python3.12/dist-packages (from transformers) (6.0.3)  
Requirement already satisfied: tokenizers<=0.23.0,>=0.22.0 in  
/usr/local/lib/python3.12/dist-packages (from transformers) (0.22.2)  
Requirement already satisfied: typer-slim in  
/usr/local/lib/python3.12/dist-packages (from transformers) (0.21.1)  
Requirement already satisfied: tqdm>=4.27 in  
/usr/local/lib/python3.12/dist-packages (from transformers) (4.67.3)  
Requirement already satisfied: psutil in  
/usr/local/lib/python3.12/dist-packages (from accelerate) (5.9.5)  
Requirement already satisfied: typing-extensions>=4.10.0 in  
/usr/local/lib/python3.12/dist-packages (from torch) (4.15.0)  
Requirement already satisfied: setuptools in  
/usr/local/lib/python3.12/dist-packages (from torch) (75.2.0)  
Requirement already satisfied: sympy>=1.13.3 in  
/usr/local/lib/python3.12/dist-packages (from torch) (1.14.0)  
Requirement already satisfied: networkx>=2.5.1 in  
/usr/local/lib/python3.12/dist-packages (from torch) (3.6.1)  
Requirement already satisfied: jinja2 in  
/usr/local/lib/python3.12/dist-packages (from torch) (3.1.6)
```

Requirement already satisfied: fsspec>=0.8.5 in
/usr/local/lib/python3.12/dist-packages (from torch) (2025.3.0)
Requirement already satisfied: nvidia-cuda-nvrtc-cu12==12.8.93 in
/usr/local/lib/python3.12/dist-packages (from torch) (12.8.93)
Requirement already satisfied: nvidia-cuda-runtime-cu12==12.8.90 in
/usr/local/lib/python3.12/dist-packages (from torch) (12.8.90)
Requirement already satisfied: nvidia-cuda-cupti-cu12==12.8.90 in
/usr/local/lib/python3.12/dist-packages (from torch) (12.8.90)
Requirement already satisfied: nvidia-cudnn-cu12==9.10.2.21 in
/usr/local/lib/python3.12/dist-packages (from torch) (9.10.2.21)
Requirement already satisfied: nvidia-cublas-cu12==12.8.4.1 in
/usr/local/lib/python3.12/dist-packages (from torch) (12.8.4.1)
Requirement already satisfied: nvidia-cufft-cu12==11.3.3.83 in
/usr/local/lib/python3.12/dist-packages (from torch) (11.3.3.83)
Requirement already satisfied: nvidia-curand-cu12==10.3.9.90 in
/usr/local/lib/python3.12/dist-packages (from torch) (10.3.9.90)
Requirement already satisfied: nvidia-cusolver-cu12==11.7.3.90 in
/usr/local/lib/python3.12/dist-packages (from torch) (11.7.3.90)
Requirement already satisfied: nvidia-cusparselt-cu12==0.7.1 in
/usr/local/lib/python3.12/dist-packages (from torch) (0.7.1)
Requirement already satisfied: nvidia-nccl-cu12==2.27.5 in
/usr/local/lib/python3.12/dist-packages (from torch) (2.27.5)
Requirement already satisfied: nvidia-nvshmem-cu12==3.3.20 in
/usr/local/lib/python3.12/dist-packages (from torch) (3.3.20)
Requirement already satisfied: nvidia-nvtx-cu12==12.8.90 in
/usr/local/lib/python3.12/dist-packages (from torch) (12.8.90)
Requirement already satisfied: nvidia-nvjitlink-cu12==12.8.93 in
/usr/local/lib/python3.12/dist-packages (from torch) (12.8.93)
Requirement already satisfied: nvidia-cufile-cu12==1.13.1.3 in
/usr/local/lib/python3.12/dist-packages (from torch) (1.13.1.3)
Requirement already satisfied: triton==3.5.0 in
/usr/local/lib/python3.12/dist-packages (from torch) (3.5.0)
Requirement already satisfied: anyio in
/usr/local/lib/python3.12/dist-packages (from httpx<1.0.0->diffusers)
(4.12.1)
Requirement already satisfied: certifi in
/usr/local/lib/python3.12/dist-packages (from httpx<1.0.0->diffusers)
(2026.1.4)
Requirement already satisfied: httpcore==1.* in
/usr/local/lib/python3.12/dist-packages (from httpx<1.0.0->diffusers)
(1.0.9)
Requirement already satisfied: idna in /usr/local/lib/python3.12/dist-
packages (from httpx<1.0.0->diffusers) (3.11)
Requirement already satisfied: h11>=0.16 in
/usr/local/lib/python3.12/dist-packages (from httpcore==1.*-
>httpx<1.0.0->diffusers) (0.16.0)
Requirement already satisfied: hf-xet<2.0.0,>=1.2.0 in

```
/usr/local/lib/python3.12/dist-packages (from huggingface-  
hub<2.0,>=0.34.0->diffusers) (1.2.0)  
Requirement already satisfied: shellingham in  
/usr/local/lib/python3.12/dist-packages (from huggingface-  
hub<2.0,>=0.34.0->diffusers) (1.5.4)  
Requirement already satisfied: mpmath<1.4,>=1.1.0 in  
/usr/local/lib/python3.12/dist-packages (from sympy>=1.13.3->torch)  
(1.3.0)  
Requirement already satisfied: zipp>=3.20 in  
/usr/local/lib/python3.12/dist-packages (from importlib_metadata-  
>diffusers) (3.23.0)  
Requirement already satisfied: MarkupSafe>=2.0 in  
/usr/local/lib/python3.12/dist-packages (from jinja2->torch) (3.0.3)  
Requirement already satisfied: charset_normalizer<4,>=2 in  
/usr/local/lib/python3.12/dist-packages (from requests->diffusers)  
(3.4.4)  
Requirement already satisfied: urllib3<3,>=1.21.1 in  
/usr/local/lib/python3.12/dist-packages (from requests->diffusers)  
(2.5.0)  
Requirement already satisfied: click>=8.0.0 in  
/usr/local/lib/python3.12/dist-packages (from typer-slim-  
>transformers) (8.3.1)
```

```
import torch  
from diffusers import StableDiffusionInstructPix2PixPipeline,  
EulerAncestralDiscreteScheduler  
from PIL import Image  
import matplotlib.pyplot as plt  
import os
```

```
INPUT_IMAGE = "/content/WhatsApp Image 2026-01-08 at 13.21.25.jpeg" #  
Ensure this file exists in the folder
```

```
# List of prompts to generate
```

```
PROMPT_LIST = [  
    "change the background to a snowy mountain peak",  
  
    "make me stand in front of the Eiffel Tower",  
  
    "put me in a library full of old books",  
  
    "make the background look like an underwater coral reef",  
  
    "change the setting to a busy Times Square at night",  
    "Make me ride a superbike"  
]
```

```
IMAGE_STABILITY = 2
```

```

TEXT_STRENGTH = 10.0

device = "cuda" if torch.cuda.is_available() else "cpu"
dtype = torch.float16 if device == "cuda" else torch.float32

print(f"--- Multi-Prompt Generator (Running on {device}) ---")

# Load Model
model_id = "timbrooks/instruct-pix2pix"
pipe = StableDiffusionInstructPix2PixPipeline.from_pretrained(
    model_id, torch_dtype=dtype, safety_checker=None
).to(device)
pipe.scheduler =
EulerAncestralDiscreteScheduler.from_config(pipe.scheduler.config)

# Load Input Image
if not os.path.exists(INPUT_IMAGE):
    print(f"❌ Error: Could not find '{INPUT_IMAGE}'.")
    exit()

original_image = Image.open(INPUT_IMAGE).convert("RGB")
original_image = original_image.resize((512, 512))

print(f"Loaded image. Processing {len(PROMPT_LIST)} prompts...\n")

for i, prompt in enumerate(PROMPT_LIST):
    print(f"🔄 Generating {i+1}/{len(PROMPT_LIST)}: '{prompt}'...")

    # Generate
    with torch.no_grad():
        result = pipe(
            prompt,
            image=original_image,
            num_inference_steps=40,
            image_guidance_scale=IMAGE_STABILITY,
            guidance_scale=TEXT_STRENGTH
        ).images[0]

    # Save locally
    filename = f"output_{i}_{prompt[:10].replace(' ', '_')}.png"
    result.save(filename)

plt.figure(figsize=(12, 6))

# Left: Original
plt.subplot(1, 2, 1)
plt.imshow(original_image)
plt.title("Original")

```

```

plt.axis("off")

# Right: Generated
plt.subplot(1, 2, 2)
plt.imshow(result)
plt.title(f"Result: {prompt}")
plt.axis("off")

plt.show()
print(f" Saved to {filename}\n" + "-"*40)

print("All done!")

```

Flax classes are deprecated and will be removed in Diffusers v1.0.0. We recommend migrating to PyTorch classes or pinning your version of Diffusers.

Flax classes are deprecated and will be removed in Diffusers v1.0.0. We recommend migrating to PyTorch classes or pinning your version of Diffusers.

--- Multi-Prompt Generator (Running on 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_id": "e778a2ccc0a24f3d956ad60159329e68", "version_major": 2, "version_minor": 0}

```

```

{"model_id": "9979f5d8e66244d7b95848fb8f31a9d9", "version_major": 2, "version_minor": 0}

```

CLIPTextModel LOAD REPORT from: /root/.cache/huggingface/hub/models--timbrooks--instruct-pix2pix/snapshots/

31519b5cb02a7fd89b906d88731cd4d6a7bbf88d/text_encoder

Key	Status	
text_model.embeddings.position_ids	UNEXPECTED	

Notes:

- UNEXPECTED :can be ignored when loading from different task/architecture; not ok if you expect identical arch.

Loaded image. Processing 6 prompts...

□ Generating 1/6: 'change the background to a snowy mountain peak'...

```
{"model_id": "d25ebfed19114bee9d1260c1157b81ed", "version_major": 2, "version_minor": 0}
```

Original



Result: change the background to a snowy mountain peak



□ Saved to output_0_change_the.png

□ Generating 2/6: 'make me stand in front of the Eiffel Tower'...

```
{"model_id": "c95d1faa6ac54fb29f0ae796d2339dd0", "version_major": 2, "version_minor": 0}
```

Original



Result: make me stand in front of the Eiffel Tower



□ Saved to output_1_make_me_st.png

□ Generating 3/6: 'put me in a library full of old books'...

```
{"model_id": "9315cd9fc2234b3c8dc2adcf83cec647", "version_major": 2, "version_minor": 0}
```

Original



Result: put me in a library full of old books



□ Saved to output_2_put_me_in_.png

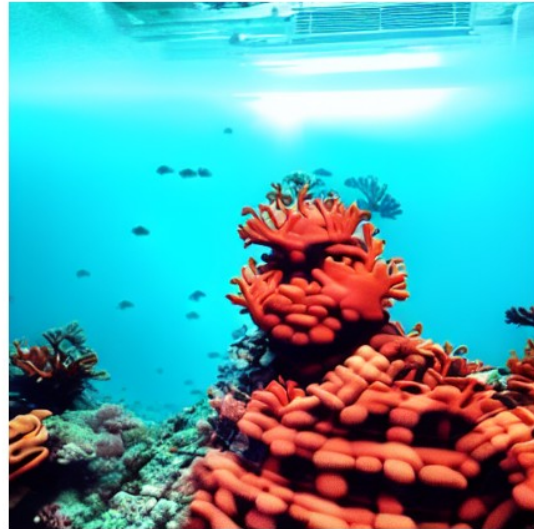
□ Generating 4/6: 'make the background look like an underwater coral reef'...

```
{"model_id": "535dafb2d55644a1a9870c0a02012bd0", "version_major": 2, "version_minor": 0}
```

Original



Result: make the background look like an underwater coral reef



□ Saved to output_3_make_the_b.png

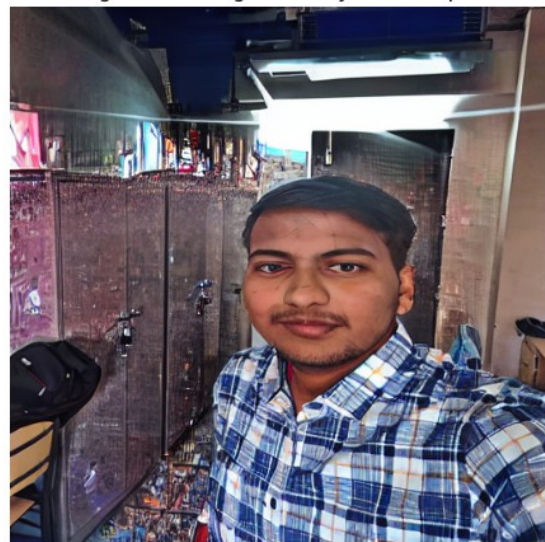
□ Generating 5/6: 'change the setting to a busy Times Square at night'...

```
{"model_id": "le1c99fe70fa4088a4796f4ecfa7be21", "version_major": 2, "version_minor": 0}
```

Original



Result: change the setting to a busy Times Square at night



□ Saved to output_4_change_the.png

□ Generating 6/6: 'Make me ride a superbike'...


```
{"model_id": "a200c295ef1e4f9280d681a8e7f60aa9", "version_major": 2, "version_minor": 0}
```

Original



Result: Make me ride a superbike



□ Saved to output_5_Make_me_ri.png

All done!