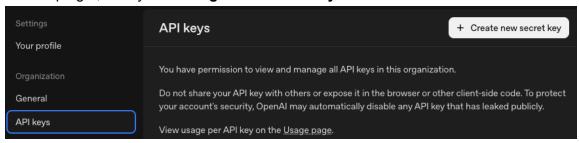# 🔑 API Key Generation Guide for Labs
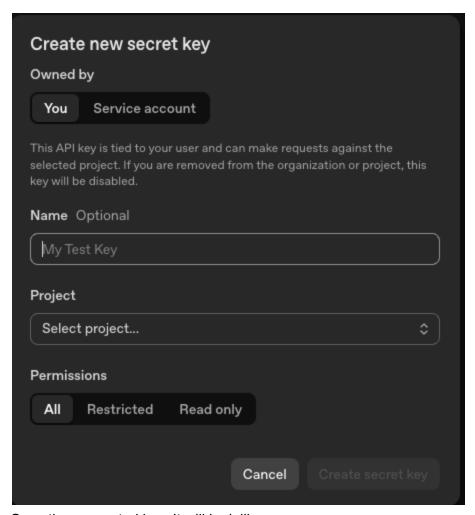
These labs use multiple GenAI providers. To run the notebooks smoothly, you'll need to create API keys for **OpenAI**, **Hugging Face**, **Google Gemini**, and **Anthropic**. Store them securely in a `.env` file at the root of your project.

---

1. OpenAI API Key

1. Go to OpenAI Platform.

2. Log in with your OpenAI account (create one if needed).

3. In the top right, click your **settings icon → API keys**.

4. Click **Create new secret key**.

5. Copy the generated key. It will look like:

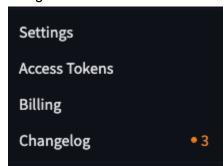```
None
sk-XXXXXXXXXXXXXXXXXXXXXXXXXX
```

6. Add it to your `.env` file:

```Shell
OPENAI_API_KEY=sk-XXXXXXXXXXXXXXXXXXXXXXXXXX
```
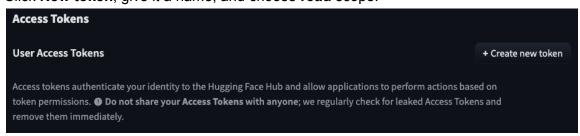
✅ Test: Run in Python:

```python
Python
import os
from openai import OpenAI
client = OpenAI(api_key=os.getenv("OPENAI_API_KEY"))
print("OpenAI key loaded successfully!" if client else "Key error")
```

---

2. Hugging Face API Key

1. Go to [Hugging Face](#).

2. Sign in or create an account.

3. Navigate to **Profile Icon → Access Tokens**.

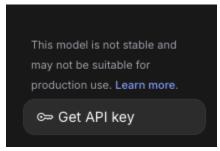4. Click **New token**, give it a name, and choose **read** scope.

5. Copy the token (starts with `hf_...`).

6. Add it to your `.env` file:

```shell
Shell
HUGGINGFACE_API_KEY=hf_xxxxxxxxxxxxxxxxxxxx
```
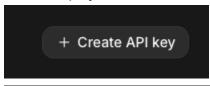
✅ Test: Run in Python:

```python
Python
from huggingface_hub import InferenceClient
import os
client = InferenceClient(model="mistralai/Mixtral-8x7B-Instruct-v0.1",
token=os.getenv("HUGGINGFACE_API_KEY"))
print("HF key loaded successfully!" if client else "Key error")
```

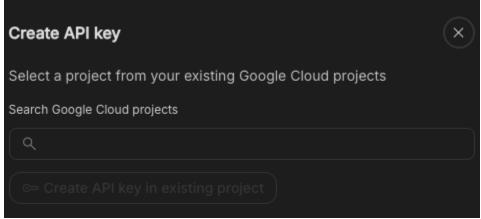# 3. Google Gemini API Key

1. Go to [Google AI Studio](#).

2. Sign in with your Google account.

3. On the left menu, click **Get API key** under "Google AI Studio".

4. Choose a project or create a new one.

5. Generate the key and copy it.

6. Add it to your `.env` file:

```Shell
GEMINI_API_KEY=AIzaSyDxxxxxxxxxxxxxxxxxxxxx
```
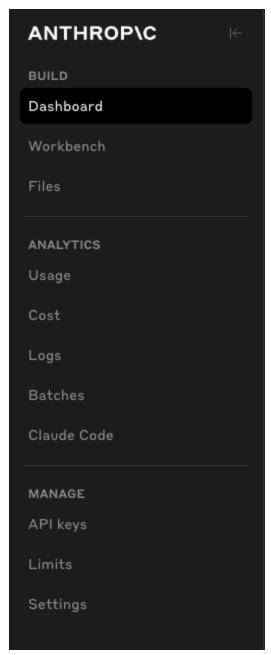
✅ Test: Run in Python:

```Python
import google.generativeai as genai, os
genai.configure(api_key=os.getenv("GEMINI_API_KEY"))
print("Gemini key loaded successfully!" if os.getenv("GEMINI_API_KEY") else
"Key error")
```

---
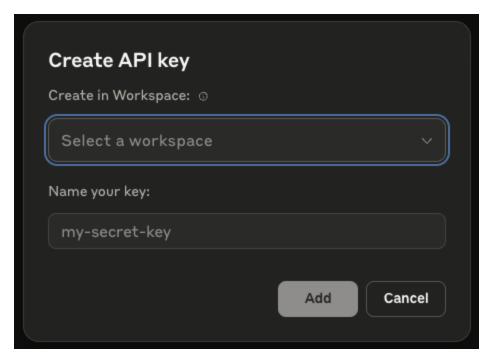
4. Anthropic API Key

1. Go to [Anthropic Console](#).

2. Log in or create an account.

3. Navigate to **API Keys** from the sidebar.

ANTHROP\C

BUILD

Dashboard

Workbench

Files

ANALYTICS

Usage

Cost

Logs

Batches

Claude Code

MANAGE

API keys

Limits

Settings

4. Click **Create Key**, name it, and copy it.

API keys 1   + Create Key

API keys are owned by workspaces and remain active even after the creator is removed

5. Add it to your .env file:

```Shell
ANTHROPIC_API_KEY=sk-ant-xxxxxxxxxxxxxxxxxxxxx
```

✅ Test: Run in Python:

```Python
import anthropic, os
client = anthropic.Anthropic(api_key=os.getenv("ANTHROPIC_API_KEY"))
print("Anthropic key loaded successfully!" if client else "Key error")
```

📂 Final .env Example

```Shell
# AI Provider Keys
OPENAI_API_KEY=sk-XXXXXXXXXXXXXXXXXXXXXXXXX
HUGGINGFACE_API_KEY=hf_XXXXXXXXXXXXXXXXXXXX
GEMINI_API_KEY=AIzaSyDXXXXXXXXXXXXXXXXXXXX
```

```
ANTHROPIC_API_KEY=sk-ant-XXXXXXXXXXXXXXXXXX
```

⚠️ Important:

- Never commit your `.env` file to GitHub.
- Always load it using `python-dotenv`:

```Python
from dotenv import load_dotenv
load_dotenv()
```