[DM2025] Lab 2 – Gemini Setup

Hi everyone,

This document provides detailed instructions for finishing setting up the environment required for Lab 2 Phase 2.

Setting up our LLM Environment - Using Google's Gemini API (Required):

In this lab we will be exploring some common functions of Large Language Models (LLMs), and we will be using Google's Gemini API for it, so we need to setup some things first. Before you start the lab you need:

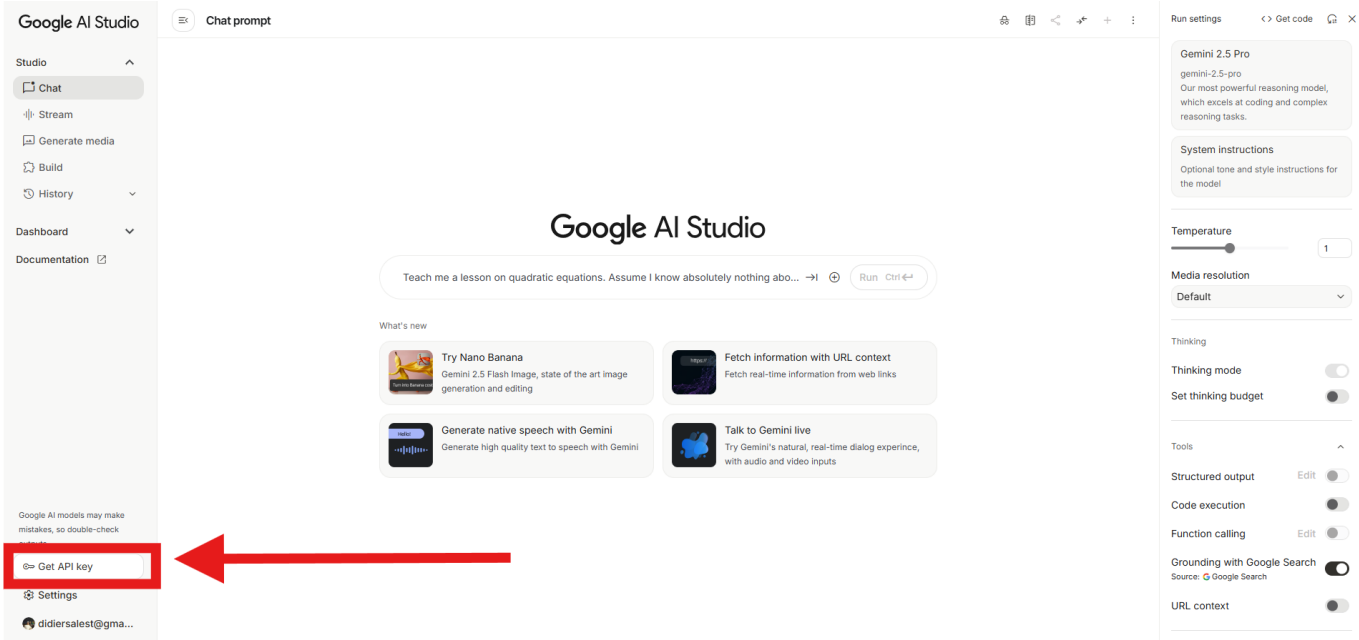
1. A google account (if you don't have one).
2. A Gemini's API Key: Get Your Gemini API Key in Google AI Studio (EASY Tutorial).
3. Copy our API key into our environment.

Quick Definition: If you look for documentation on how to handle API Keys in coding projects, this falls under the category of `Secrets`, because it is personal information that needs to be handled privately so others do not make use of our resources.

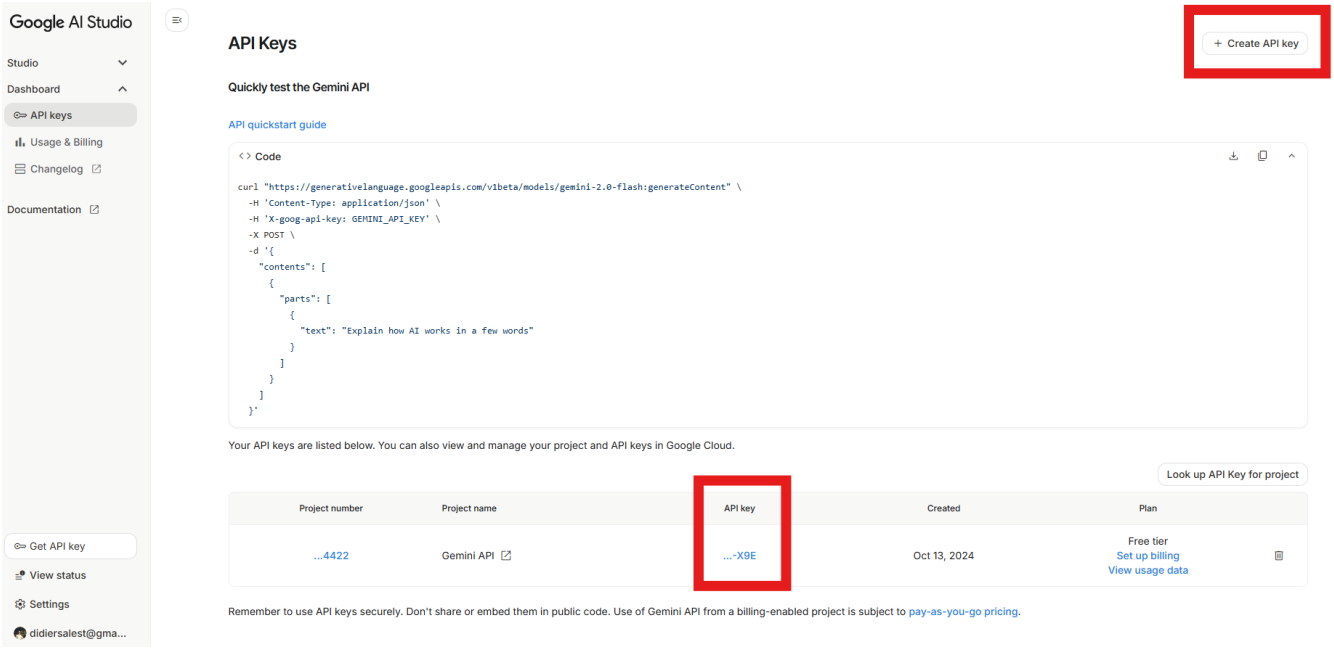
So first, with your google account you need to sign in into Google AI Studio.

Follow the video tutorial cited above for this.

Inside the website we need to find the `Get API Key` button, like this:



We create a new API Key and copy it from the following section:

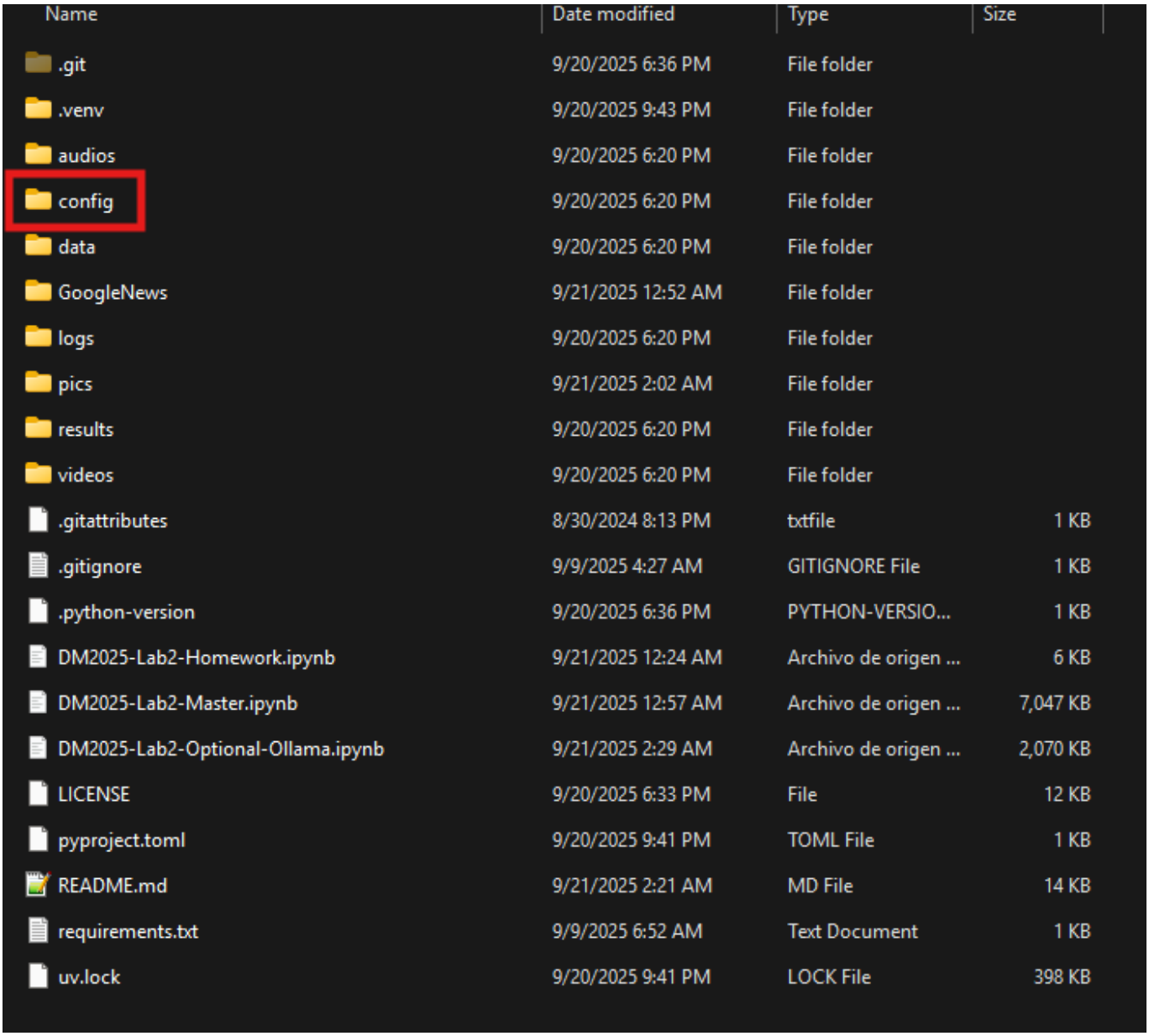


Never share your API Key publicly, avoid pushing it into GitHub if you use it for other projects.

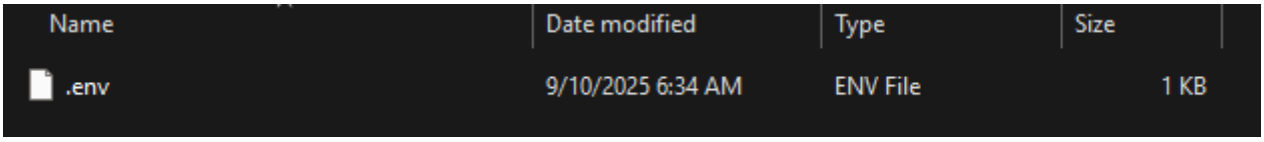
Local use of Google API Key:

If you are running the lab from your laptop you need to do the following:

After you copy the API Key from Gemini, you need to go inside the `config` folder under lab 2 and create a `.env` file in this way:



Name	Date modified	Type	Size
.git	9/20/2025 6:36 PM	File folder	
.venv	9/20/2025 9:43 PM	File folder	
audios	9/20/2025 6:20 PM	File folder	
config	9/20/2025 6:20 PM	File folder	
data	9/20/2025 6:20 PM	File folder	
GoogleNews	9/21/2025 12:52 AM	File folder	
logs	9/20/2025 6:20 PM	File folder	
pics	9/21/2025 2:02 AM	File folder	
results	9/20/2025 6:20 PM	File folder	
videos	9/20/2025 6:20 PM	File folder	
.gitattributes	8/30/2024 8:13 PM	txtfile	1 KB
.gitignore	9/9/2025 4:27 AM	GITIGNORE File	1 KB
.python-version	9/20/2025 6:36 PM	PYTHON-VERSIO...	1 KB
DM2025-Lab2-Homework.ipynb	9/21/2025 12:24 AM	Archivo de origen ...	6 KB
DM2025-Lab2-Master.ipynb	9/21/2025 12:57 AM	Archivo de origen ...	7,047 KB
DM2025-Lab2-Optional-Ollama.ipynb	9/21/2025 2:29 AM	Archivo de origen ...	2,070 KB
LICENSE	9/20/2025 6:33 PM	File	12 KB
pyproject.toml	9/20/2025 9:41 PM	TOML File	1 KB
README.md	9/21/2025 2:21 AM	MD File	14 KB
requirements.txt	9/9/2025 6:52 AM	Text Document	1 KB
uv.lock	9/20/2025 9:41 PM	LOCK File	398 KB



Name	Date modified	Type	Size
.env	9/10/2025 6:34 AM	ENV File	1 KB

Inside the `.env` file you are gonna copy and paste the following line:

```
GOOGLE_API_KEY = "your-api-key"
```

Change `your-api-key` text with your real API Key that you copied from Google AI Studio.

This file will never be pushed into github because it is inside the .gitignore

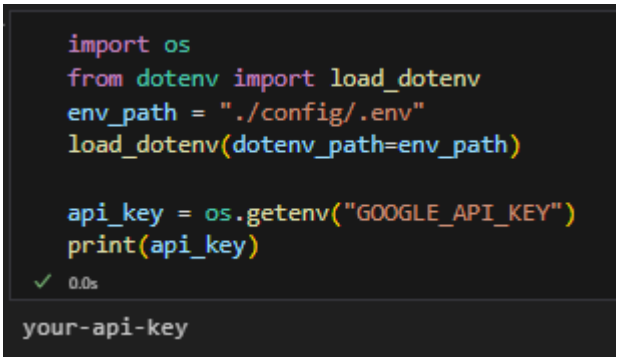
To test if everything is alright you can run the following lines of code:

```
import os
from dotenv import load_dotenv
env_path = "./config/.env"
```

```
load_dotenv(dotenv_path=env_path)

api_key = os.getenv("GOOGLE_API_KEY")
print(api_key)
```

You should see your Google API Key showing up in the print like this:

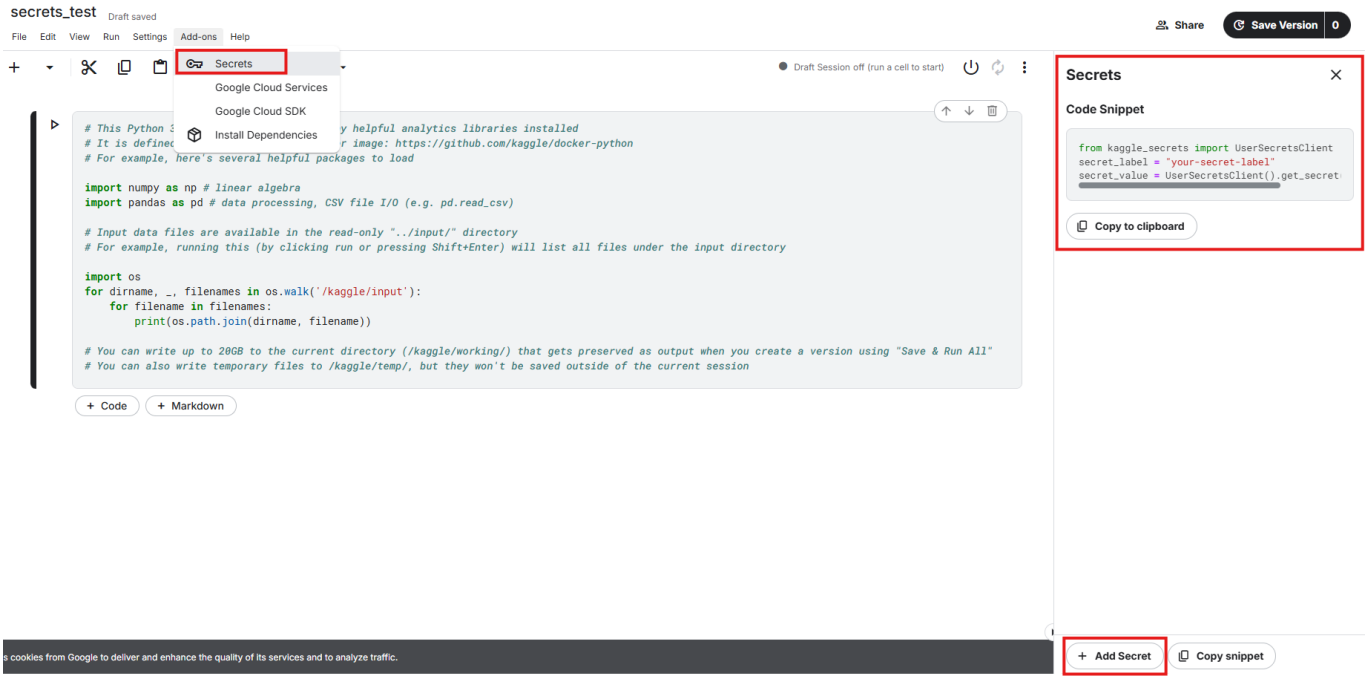


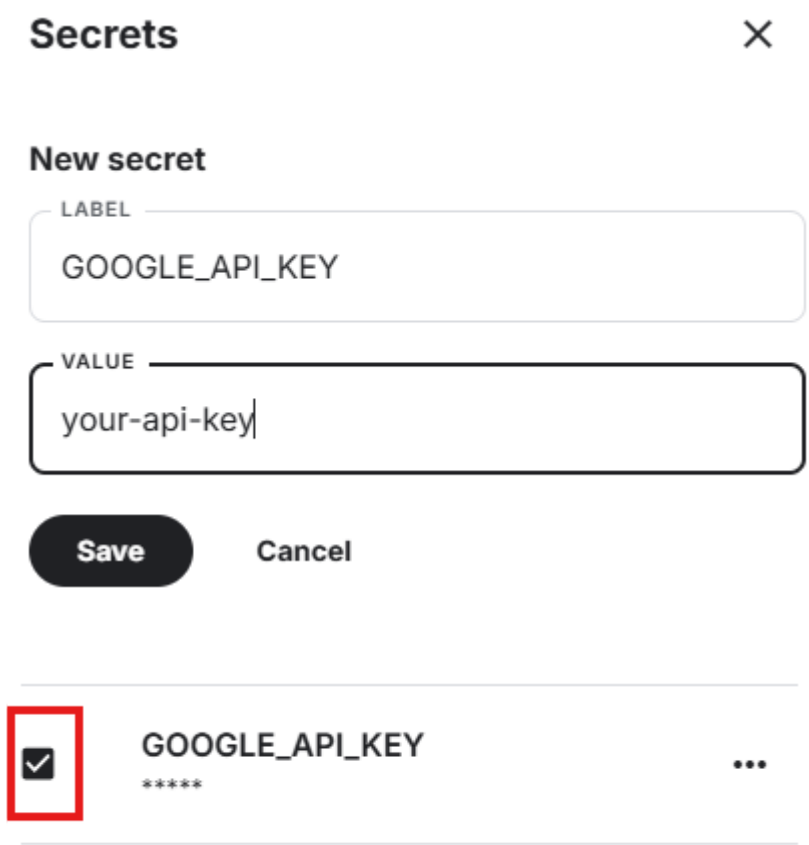
How to handle `Secrets` in Kaggle:

You can add your Google API Key in the following way:

1. Access your Kaggle Notebook.
2. Go to the `Add-ons` section and select `Secrets`.
3. In the right side panel click `Add Secrets`.
4. In the `LABEL` section enter `GOOGLE_API_KEY`
5. In the `VALUE` section enter your API Key.
6. Click in the toggle next to your added Secret to activate the use in the current notebook.
7. Test with the provided code if the API key can be retrieved successfully.

Follow the procedure like this:

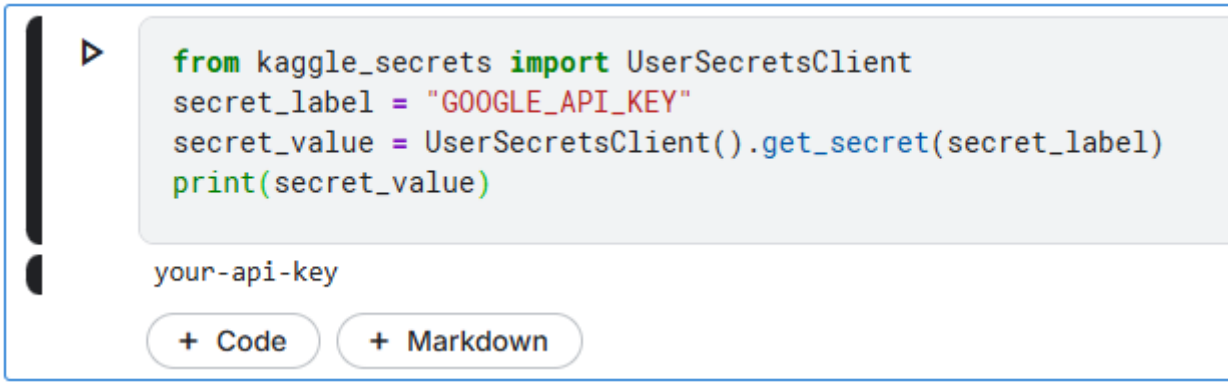




Test the following code to see if it worked:

```
from kaggle_secrets import UserSecretsClient
secret_label = "GOOGLE_API_KEY"
secret_value = UserSecretsClient().get_secret(secret_label)
print(secret_value)
```

You should see something like this:



How to handle `Secrets` in Google Colab:

You can add your Google API Key in the following way:

1. Access your Google Colab Notebook.
2. Go to the `key` icon.

3. Press `Add new secret`.
4. Add in the name column `GOOGLE_API_KEY`.
5. Add in the value column your API key.
6. Click on the toggle next to the name column that says `Notebook access`, so your notebook can call this value.
7. You can test how to retrieve the secret with their provided code below.

To test that your secrets can be retrieved successfully use this code:

```
from google.colab import userdata
api_key = userdata.get('GOOGLE_API_KEY')
print(api_key)
```

As you can see here: