**The following Libraries are to be installed for various modules in this course**

**Prerequisite:** You have already created your Virtual environment.

Otherwise, create your Virtual environment and proceed to install the following libraries.

**Note:** At the start of creating your virtual environment, if you do not have ‘pipenv’, then do a ‘pip install pipenv’ and proceed with creation of the Virtual environment using ‘pipenv’.

After creating and activating your Virtual environment, use the ‘pipenv install <library-name> ’ command to install the below Libraries:

**List of Library Names to be installed:**

pandas

python-dotenv

os-sys

openai

langchain

langchain-openai

langchain-google-genai

langchain-chroma

langchain-community

langsmith

**Setting Up an API Key and Environment Variables in aistudio.google.com**

**Step 1: Get an API Key from aistudio.google.com**

1. Go to [aistudio.google.com](https://aistudio.google.com) and sign in with your Google account.

2. Navigate to the **API Key** section (often found under account settings or in the developer tab).

3. Click on **Create API Key** and follow the prompts to generate a new key.

4. Once the API key is created, copy it. You’ll use this key to authenticate API calls in your environment.

**Step 2: Add the API Key to Your Environment**

To store your API key securely as an environment variable in aistudio.google.com or Google Colab, follow these steps:

1. In your code, create a new environment variable with the following command:

import os

os.environ[=’GEMINI\_API\_KEY’] = 'your-api-key-here'

**Note:** Replace 'your-api-key-here' with the actual API key you copied in Step 1.

1. You can now access this key securely in your code using:

``api\_key = os.getenv('GEMINI\_API\_KEY')