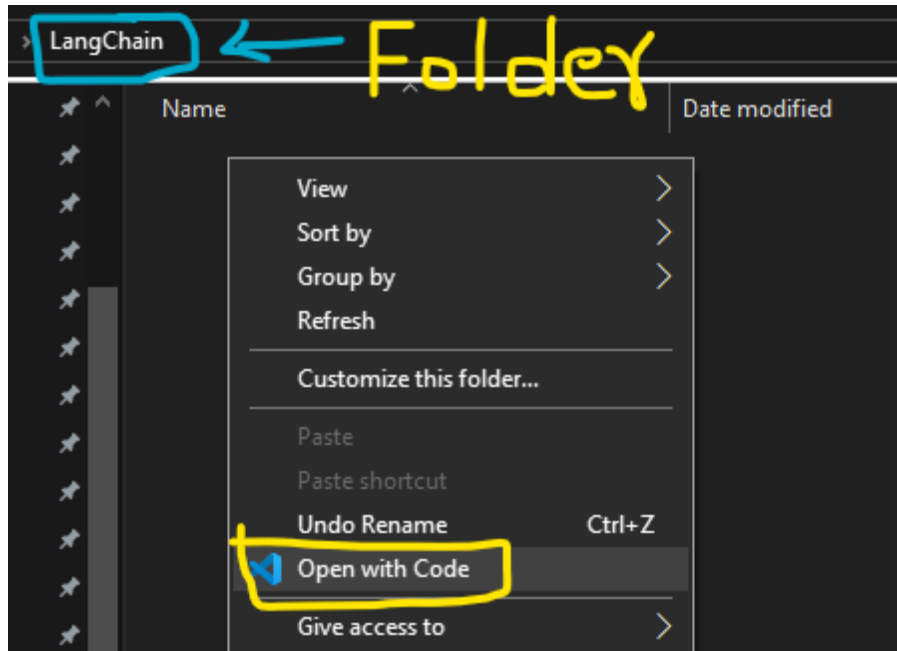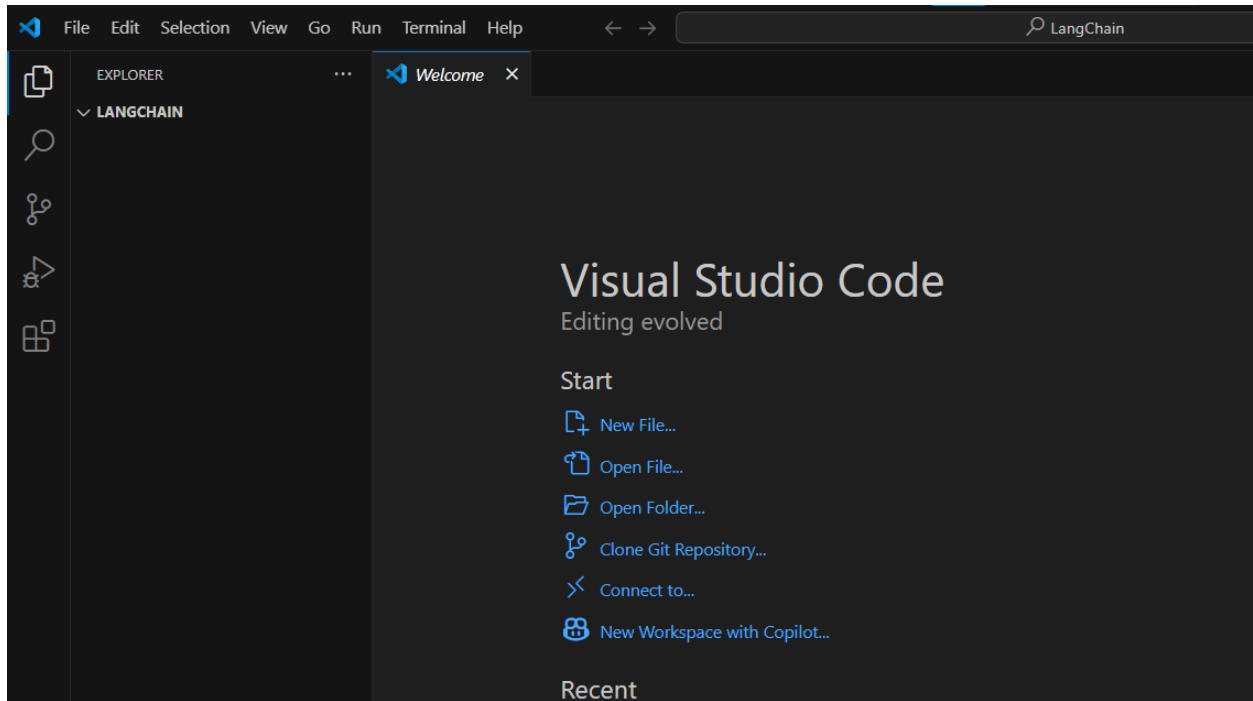# Create Virtual Environment

- Inside Langchain folder, right click → Open with code

- **This will open the folder inside VS Code:**

Open Terminal:

- ctrl + J

```
$ python -m venv myenv
```

Activate the environment:

```
source myenv/Scripts/activate
```

💡 **The above commands only work for BASH**

Create a `requirements.tx` file:


```
1  langchain
2  ipykernel
```

```
langchain
python-dotenv


# LangChain Core
langchain-core

# OpenAI Integration
# langchain-openai
# openai

# Anthropic Integration
langchain-anthropic

# Google Gemini (PaLM) Integration
langchain-google-genai
google-generativeai

# Hugging Face Integration
langchain-huggingface
transformers
huggingface-hub

# Environment Variable Management
python-dotenv

# Machine Learning Utilities
numpy
scikit-learn

ipykernel
streamlit
langchain_groq
fastapi
langserve
```
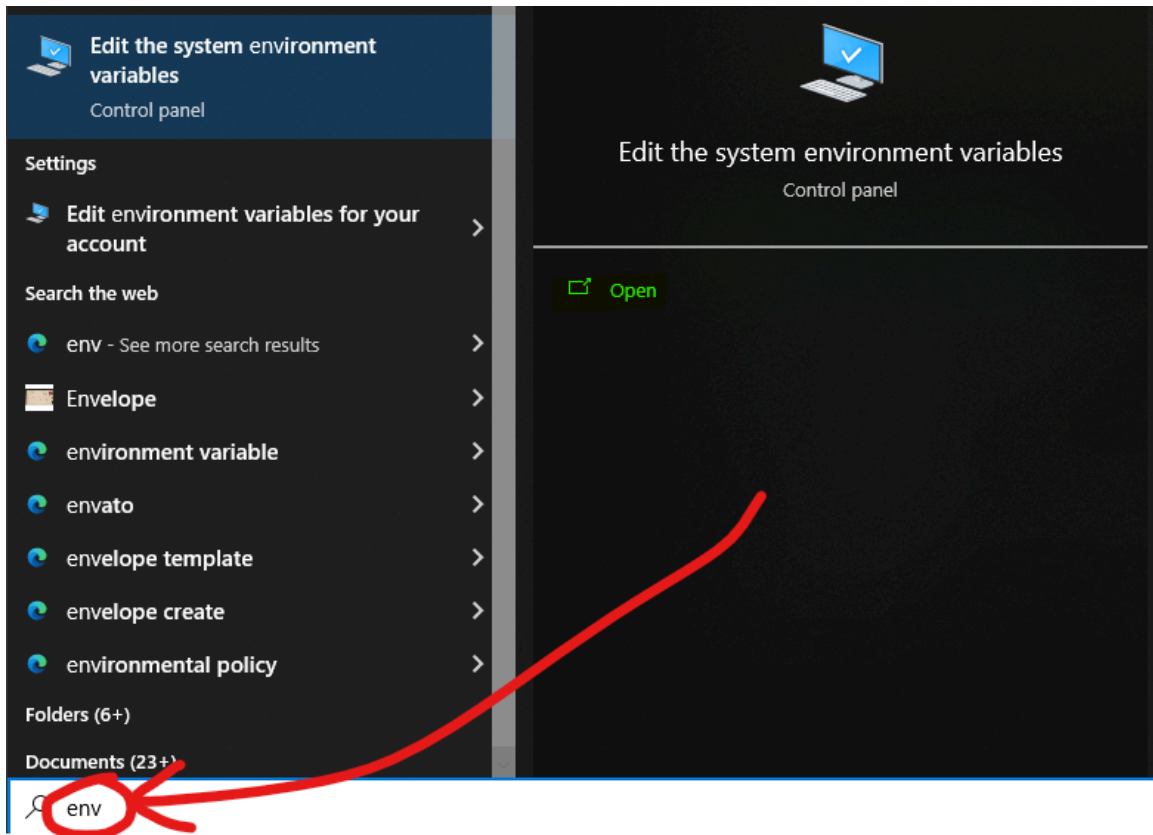
```
sse_starlette
langchain_chroma
faiss-cpu
```

```
pip install -r requirements.txt
```
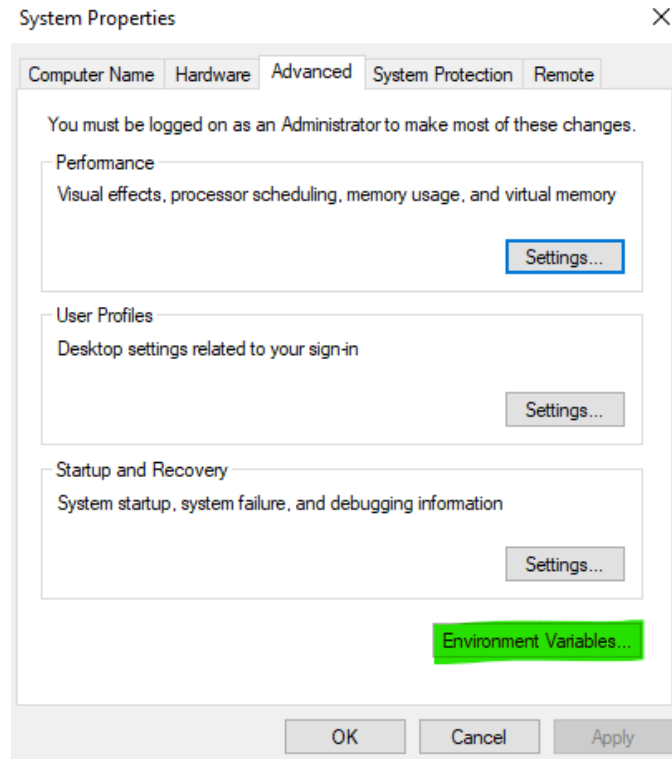
```
Using cached sniffio-1.3.1-py3-none-any.whl.metadata (3.9 kB)
Downloading langchain-0.3.25-py3-none-any.whl (1.0 MB)
                                    1.0/1.0 MB 8.0 MB/s eta 0:00:00
Downloading langchain_core-0.3.60-py3-none-any.whl (437 kB)
                                    437.9/437.9 kB 9.1 MB/s eta 0:00:00
Downloading langchain_text_splitters-0.3.8-py3-none-any.whl (32 kB)
Downloading langsmith-0.3.42-py3-none-any.whl (360 kB)
                                    360.3/360.3 kB 10.9 MB/s eta 0:00:00
Using cached pydantic-2.11.4-py3-none-any.whl (443 kB)
Using cached pydantic_core-2.33.2-cp312-cp312-win_amd64.whl (2.0 MB)
Using cached PyYAML-6.0.2-cp312-cp312-win_amd64.whl (156 kB)
Using cached requests-2.32.3-py3-none-any.whl (64 kB)
Downloading sqlalchemy-2.0.41-cp312-cp312-win_amd64.whl (2.1 MB)
                                    2.1/2.1 MB 10.4 MB/s eta 0:00:00
Using cached annotated_types-0.7.0-py3-none-any.whl (13 kB)
Using cached certifi-2025.4.26-py3-none-any.whl (159 kB)
Using cached charset_normalizer-3.4.2-cp312-cp312-win_amd64.whl (105 kB)
Downloading greenlet-3.2.2-cp312-cp312-win_amd64.whl (296 kB)
                                    296.2/296.2 kB 6.1 MB/s eta 0:00:00
Using cached httpx-0.28.1-py3-none-any.whl (73 kB)
Downloading httpcore-1.0.9-py3-none-any.whl (78 kB)
                                    78.8/78.8 kB ? eta 0:00:00
Using cached idna-3.10-py3-none-any.whl (70 kB)
Downloading jsonpatch-1.33-py2.py3-none-any.whl (12 kB)
Downloading orjson-3.10.18-cp312-cp312-win_amd64.whl (134 kB)
                                    134.8/134.8 kB 7.8 MB/s eta 0:00:00
Using cached packaging-24.2-py3-none-any.whl (65 kB)
Downloading requests_toolbelt-1.0.0-py2.py3-none-any.whl (54 kB)
                                    54.5/54.5 kB 2.8 MB/s eta 0:00:00
Downloading tenacity-9.1.2-py3-none-any.whl (28 kB)
```
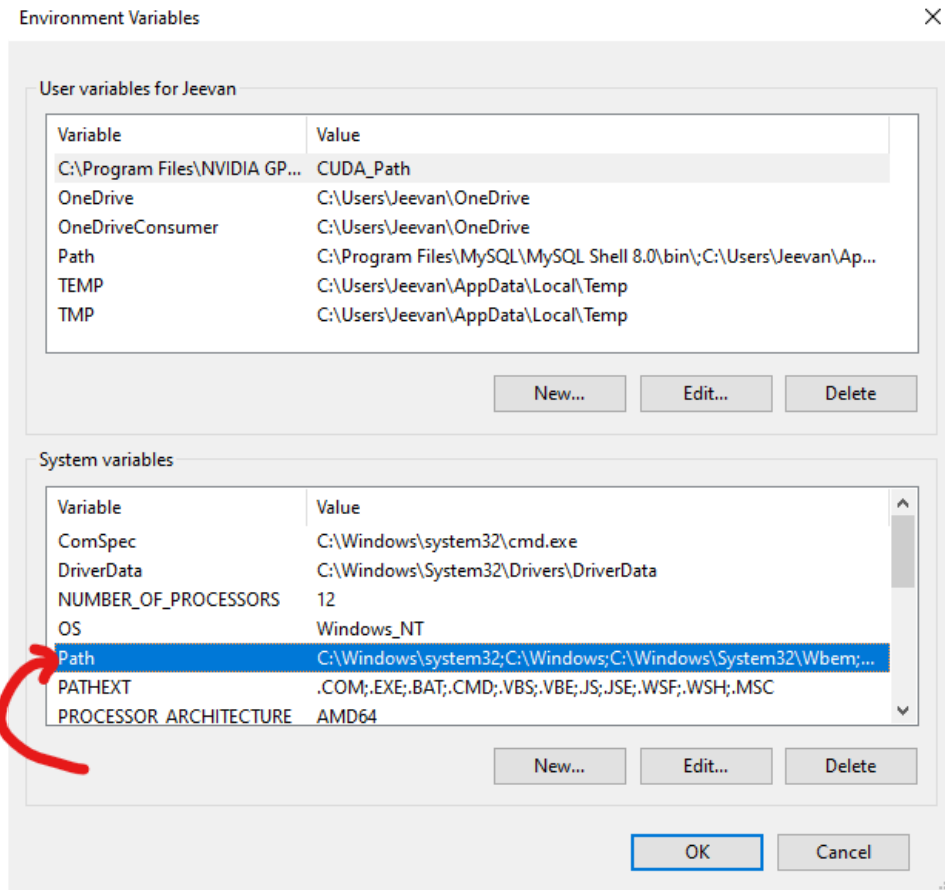
🐍With Conda:

- Install Anaconda or Miniconda

- Find the installation folder

- Go to *condabin*

  - C:\Users\Jeevan\miniconda3\condabin
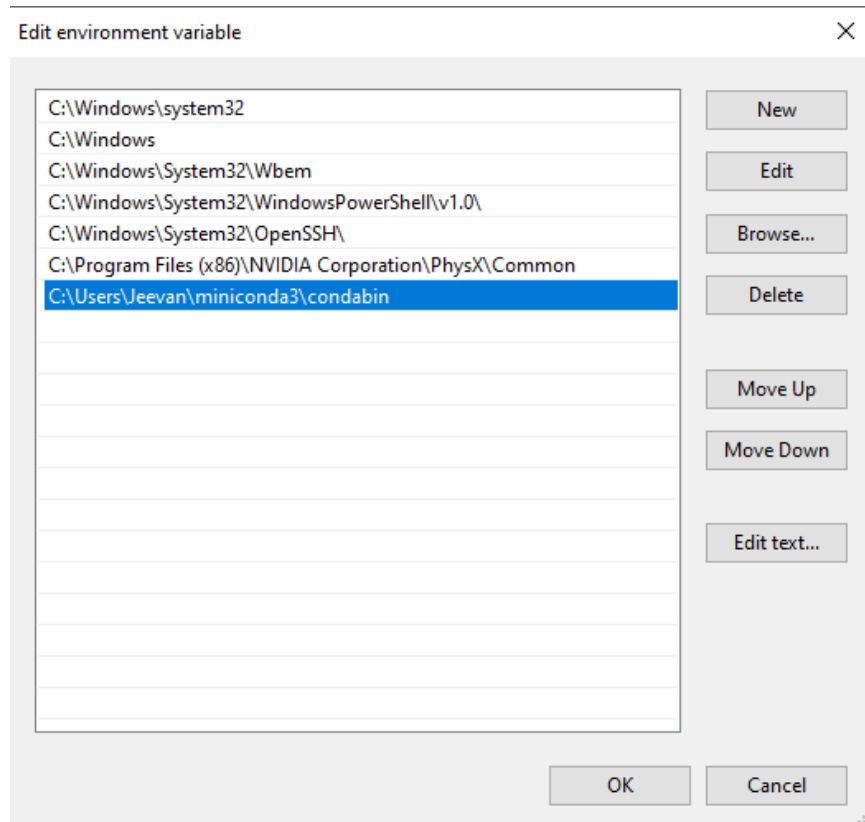
- Copy the path

- Type "env" and open the following

- Click **environment variables**

- Double click Path

- Double click in the black space and add the copied path

- Press OK and restart the terminal

Create the venv with Conda

```
conda create -p venv python==3.10
```

Create a `requirements.txt` file:

```
langchain
python-dotenv


# LangChain Core
langchain-core


# OpenAI Integration
```

```
# langchain-openai
# openai

# Anthropic Integration
langchain-anthropic

# Google Gemini (PaLM) Integration
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google-generativeai

# Hugging Face Integration
langchain-huggingface
transformers
huggingface-hub

# Environment Variable Management
python-dotenv

# Machine Learning Utilities
numpy
scikit-learn
langchain-community
pypdf
bs4
arxiv
pymupdf
wikipedia
tiktoken
sentence-transformers
langchain-chroma
faiss-cpu
langchain-chroma
```

Activate the environment:

```
conda activate "D:\Python Env\LangChain\venv"
```

```
pip install -r requirements.txt
```

- This will take some time and after that you're good to go.

!!Set VS Code to Auto-Activate the Environment

💡 **We need to activate the venv every time we open vs code. Follow these steps to avoid deactivating it.**

In **any terminal (CMD/PowerShell)** in VS Code, run:

```
conda activate "D:\Python_Env\LangChain\venv"
```

Set VS Code to Auto-Activate the Environment

1. Open the **Command Palette** (`Ctrl+Shift+P`).

2. Search for:CopyDownload

```
Python: Select Interpreter
```

3. Choose the Python executable from your `venv` :CopyDownload

```
D:\Python_Env\LangChain\venv\python.exe
```

(VS Code will now auto-activate this environment in new terminals.)

Ensure Conda is Initialized for VS Code

Run these commands **once** to fix terminal auto-activation:

```
conda init cmd.exe     # For CMD
conda init powershell  # For PowerShell
```

Restart VS Code afterward.

Verify the Environment

Check if the environment is active:

```
conda info --envs
```

- The active env will have a next to it.
- Confirm Python path:

```
where python  # Should point to your venv
```