

# How to use Commercial LLMs

## Instructor

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# Key Focus



How to use commercial LLMs Natively



How to use commercial LLMs with LangChain

# LLM APIs Covered

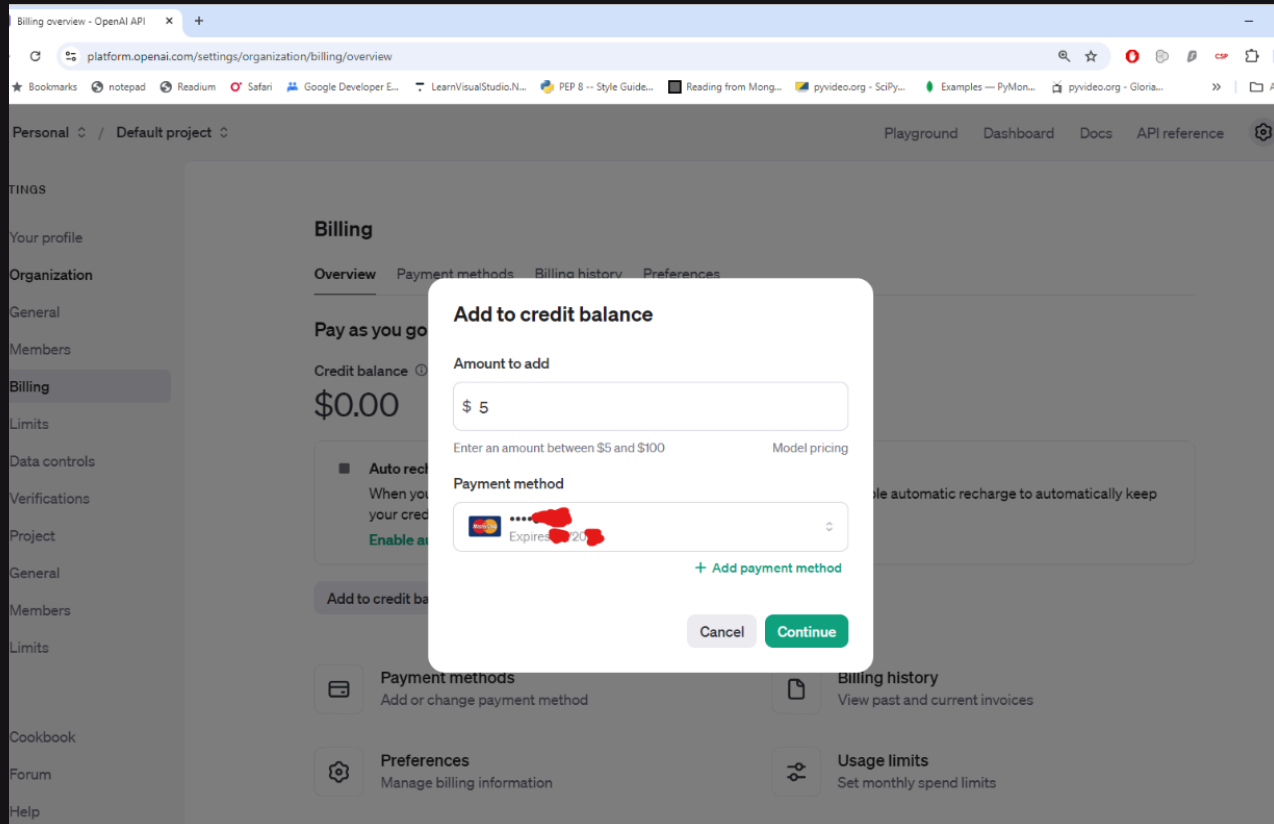


OpenAI GPT API



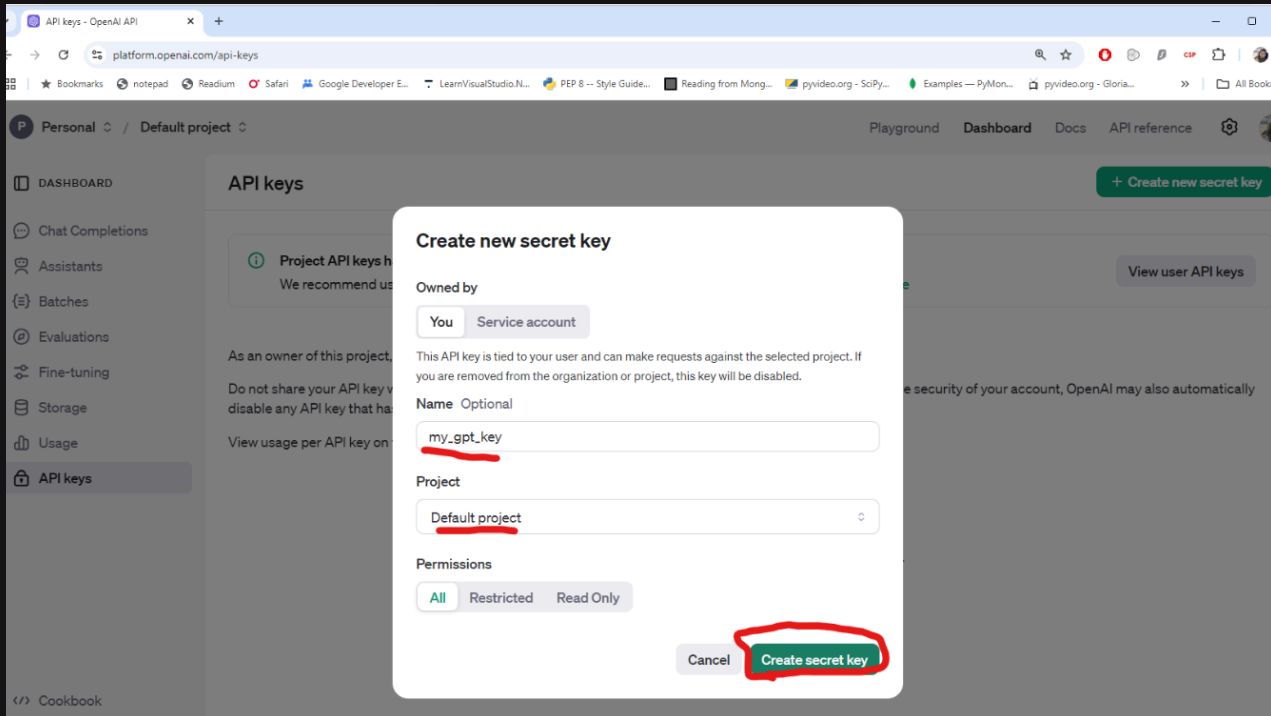
Google Gemini API

# Setup your OpenAI Account and Billing



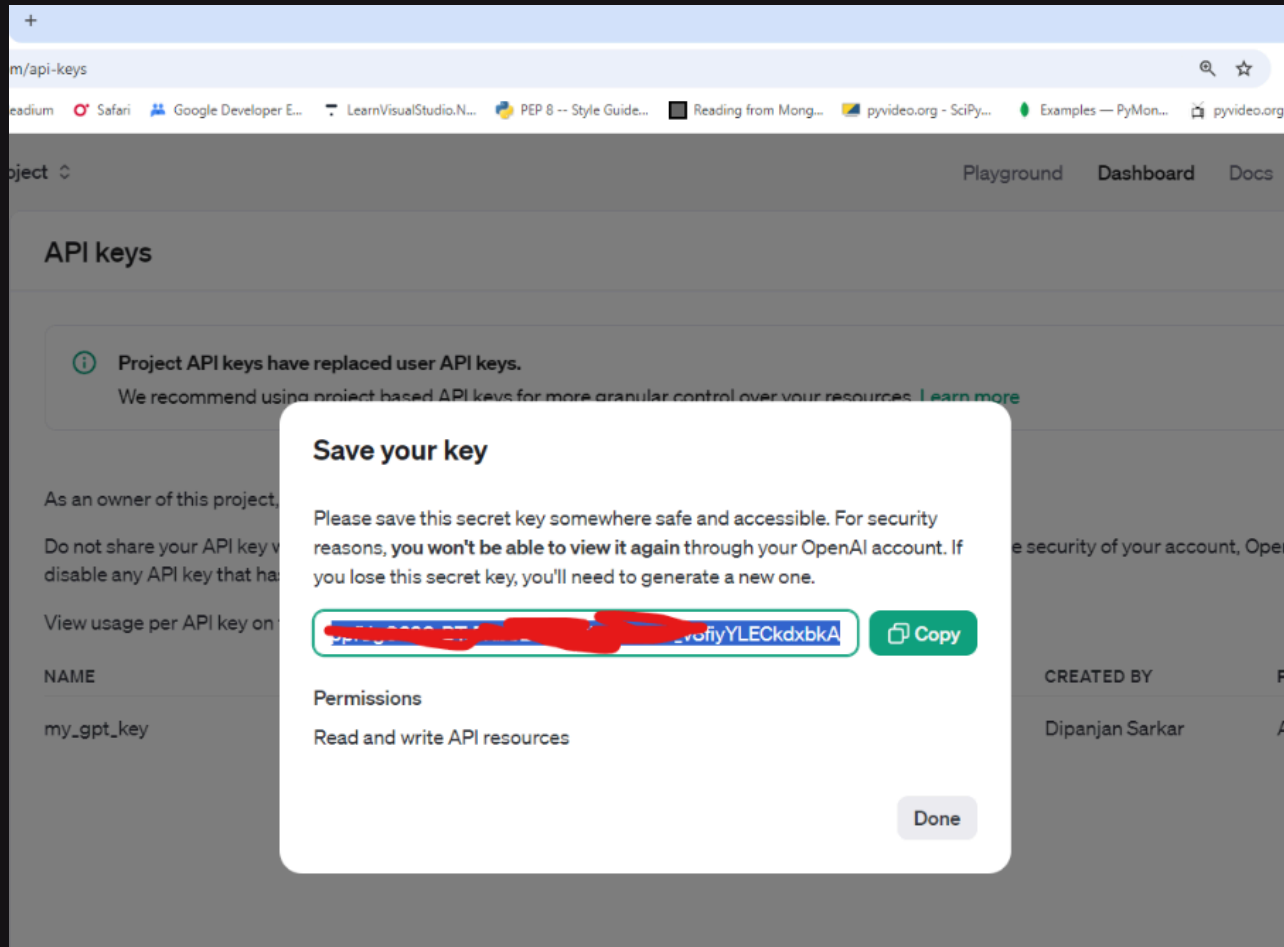
- Create an account on <https://platform.openai.com/>
- Go to Settings -> Billing as shown on the left
- Add in minimum of 5\$ credit balance

# Setup your OpenAI API Key



- Go to Dashboard -> API keys as shown on the left
- Create your secret key

# Save your OpenAI API Key



- Save your secret key in a secure location as it will be just shown once
- If you forget your key just generate a new one
- Do NOT paste your key publicly on the internet

# OpenAI API Pricing (As of Late 2024)

Model	Input Pricing (\$ per 1K tokens)	Output Pricing (\$ per 1K tokens)
gpt-4o	0.00250	0.0100
gpt-4o-mini	0.00015	0.0006
gpt-3.5-turbo	0.00050	0.0015
o1-preview	0.01500	0.0600
o1-mini	0.00300	0.0120
chatgpt-4o-latest	0.00500	0.0150

Source: <https://openai.com/api/pricing/> for the latest prices

# Get your Google Gemini API Key

Google AI Studio

Get API key

API quickstart guide

```
curl \
-H 'Content-Type: application/json' \
-d '{"contents":[{"parts":[{"text":"Explain how AI works"}]}]' \
-X POST 'https://generativelanguage.googleapis.com/v1beta/models/gemini-1.5-flash-latest:generateContent?key=YOUR_API_KEY'
```

Use code with caution.

Create API key

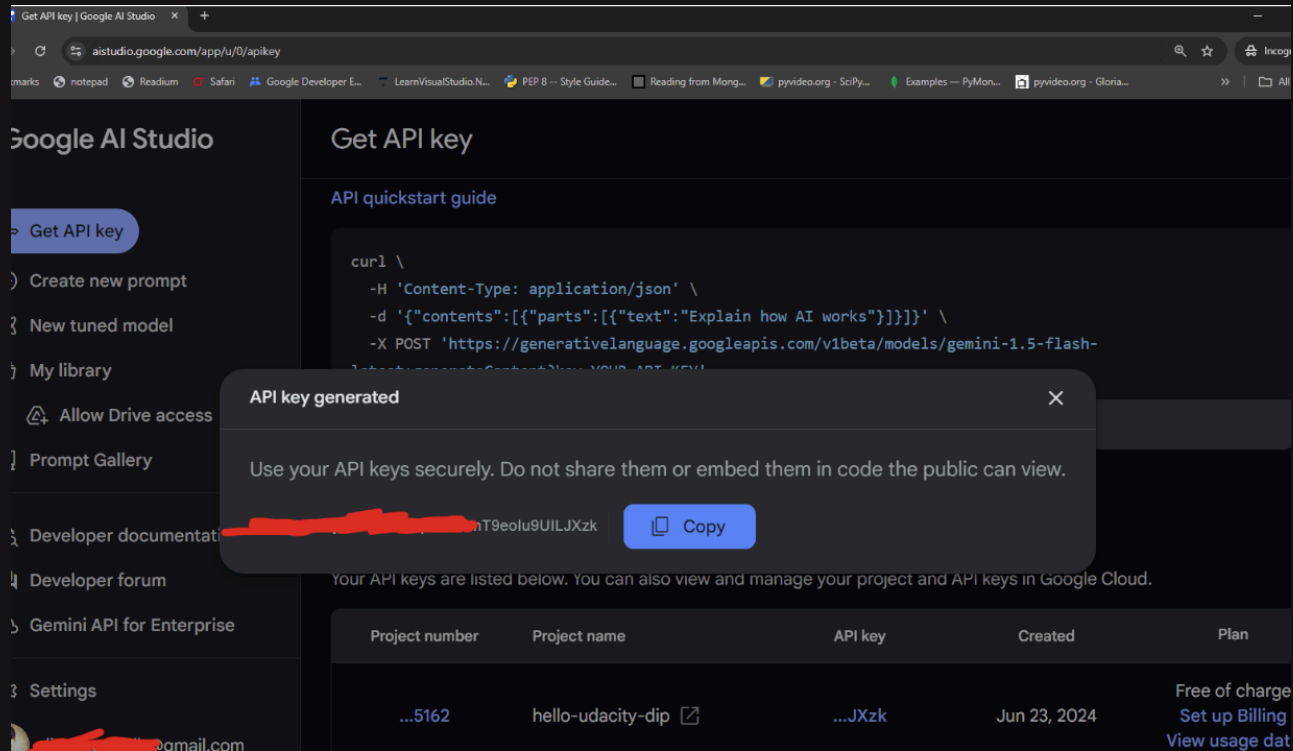
Your API keys are listed below. You can also view and manage your project and API keys in Google Cloud.

Project number	Project name	API key	Created	Plan
...5162	hello-udacity-dip	...JXzk	Jun 23, 2024	Free of charge Set up Billing View usage data

- Create an account on <https://aistudio.google.com/app/u/0/apikey>
- Click on Create API Key as shown
- So far most models are free of charge, might need billing in the future



# Save your Google Gemini API Key



- Save your secret key in a secure location
- Can create more keys in the future if needed
- Do NOT paste your key publicly on the internet

# Google Gemini API Pricing (As of Late 2024)

Model	Rate Limits	Input Pricing (\$ per 1K tokens)	Input Pricing (\$ per 1K tokens)
Gemini 1.5 Flash Free	15 RPM, 1M TPM, 1,500 RPD	Free of Charge	Free of Charge
Gemini 1.5 Flash Paid ( ≤ 128k tokens )	2,000 RPM, 4M TPM	0.000075	0.00030
Gemini 1.5 Flash Paid ( > 128k tokens )	2,000 RPM, 4M TPM	0.00015	0.00060
Gemini 1.5 Pro Free	2 RPM, 32k TPM, 50 RPD	Free of Charge	Free of Charge
Gemini 1.5 Pro Paid ( ≤ 128k tokens )	1,000 RPM, 4M TPM	0.00125	0.00500
Gemini 1.5 Pro Paid ( > 128k tokens )	1,000 RPM, 4M TPM	0.00250	0.01000

Source: <https://ai.google.dev/pricing> for the latest prices

# Thank You

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