

OpenAI 계정 준비, 실행 방법

개요

OpenAI API를 사용하기 위한 다음 방법을 설명

- 계정 생성과 키 생성
- 결제 정보 설정
- Github Codespaces에서 실행 방법

OpenAI 계정 생성과 키 생성

계정 생성 : <https://beta.openai.com/signup>

계정 생성

홈에서 'create a free account' 클릭.

OpenAI Cookbook

The OpenAI Cookbook shares example code for accomplishing common tasks with the [OpenAI API](#).

To run these examples, you'll need an OpenAI account and API key ([create a free account](#)).

Most code examples are written in Python, though the concepts can be applied in any language.



Open in GitHub Codespaces

'Continue with Google' 클릭하고 구글 계정 선택

Create your account

Please note that phone verification is required for signup. Your number will only be used to verify your identity for security purposes.

Email address

Continue

Already have an account? [Log in](#)

OR



Continue with Google



Continue with Microsoft Account



Continue with Apple

로그인 후 우측 상단의 자기 계정이름 클릭.

'View API keys' 클릭.

[Upgrade](#)

[Help](#)

[도형](#) Rowan

임도형

dhrim@rowan.kr

Rowan

Manage account

View API keys

Invite team

Visit ChatGPT

Visit DALL-E

Help

Pricing

Terms & policies

Log out

'+ Create new secret key' 클릭.

API keys

Your secret API keys are listed below. Please note that we do not display your secret API keys again after you generate them.

Do not share your API key with others, or expose it in the browser or other client-side code. In order to protect the security of your account, OpenAI may also automatically rotate any API key that we've found has leaked publicly.

You currently do not have any API keys. Please create one below.

+ Create new secret key

Default organization

If you belong to multiple organizations, this setting controls which organization is used by default when making requests with the API keys above.

Rowan

Note: You can also specify which organization to use for each API request. See [Authentication](#) to learn more.

아무 키 이름(여기서는 'My Test Key' 입력하고) 'Create secret key' 클릭.

Create new secret key

Name Optional

My Test Key

Cancel

Create secret key

카피 아이콘 클릭하고 'Done' 클릭.

Create new secret key

Please save this secret key somewhere safe and accessible. For security reasons, **you won't be able to view it again** through your OpenAI account. If you lose this secret key, you'll need to generate a new one.

sk-Yc2S1z0rOk0w [REDACTED] HBARsLvU



Done

이후 코드 실행 시킬 때 다음 코드에 키 값을 설정하여 사용

```
import openai
openai.api_key = "YOUR_KEY"
```

```
import openai
openai.api_key = "sk-Yc2S1z0r0[REDACTED]BNHBARsLvgU1y"
```



저 키 값은 이후로는 안보여 준다.
키 생성했을 때 카피한 값을 따로 잘 보관하여야 한다.

결제 정보 입력

빌링 페이지로 이동

<https://platform.openai.com/account/billing/overview>

‘Set up paid account’ 클릭

Billing overview

Free trial

You are currently on a free trial of the OpenAI API. Head over to your [Usage](#) page to view how many free trial credits are remaining on your account. This does not reflect the status of your ChatGPT account.

Set up paid account

‘I’m an individual’ 클릭.

Set up payment method

I'm an individual

I'm working on behalf of a company

팝업된 창에 결제 정보 입력.

Set up payment method

Pay as you go

A temporary authorization hold will be placed on your card for \$5. At the end of each calendar month, you'll be charged for all usage that happened during the month.

[What is a temporary authorization hold?](#)

[Learn more about pricing](#) 

Card information

 카드 번호	MM / YY CVC
---	-------------

Name on card

Billing address

Cancel

Set up payment method

실습 노트북 실행

OpenAI CookBook github 홈으로 가기

<https://github.com/openai/openai-cookbook>

github 홈에서 'Open in Github Codespaces' 클릭



Codespaces

코드를 실행해 볼 수 있는 머신을 제공한다.

별도의 개발 환경을 준비하지 않아도 웹 브라우저 상으로 코드를 실행시켜 볼 수 있다.

OpenAI Cookbook

The OpenAI Cookbook shares example code for accomplishing common tasks with the [OpenAI API](#).


To run these examples, you'll need an OpenAI account and API key ([create a free account](#)).

Most code examples are written in Python, though the concepts can be applied in any language.

 Open in GitHub Codespaces

‘create codespace’ 클릭

Create codespace for openai/openai-cookbook

 Codespace usage for this repository is paid for by dhrim

Branch

This branch will be checked out on creation

 main ▾

Region

Your codespace will run in the selected region

US East ▾

Machine type

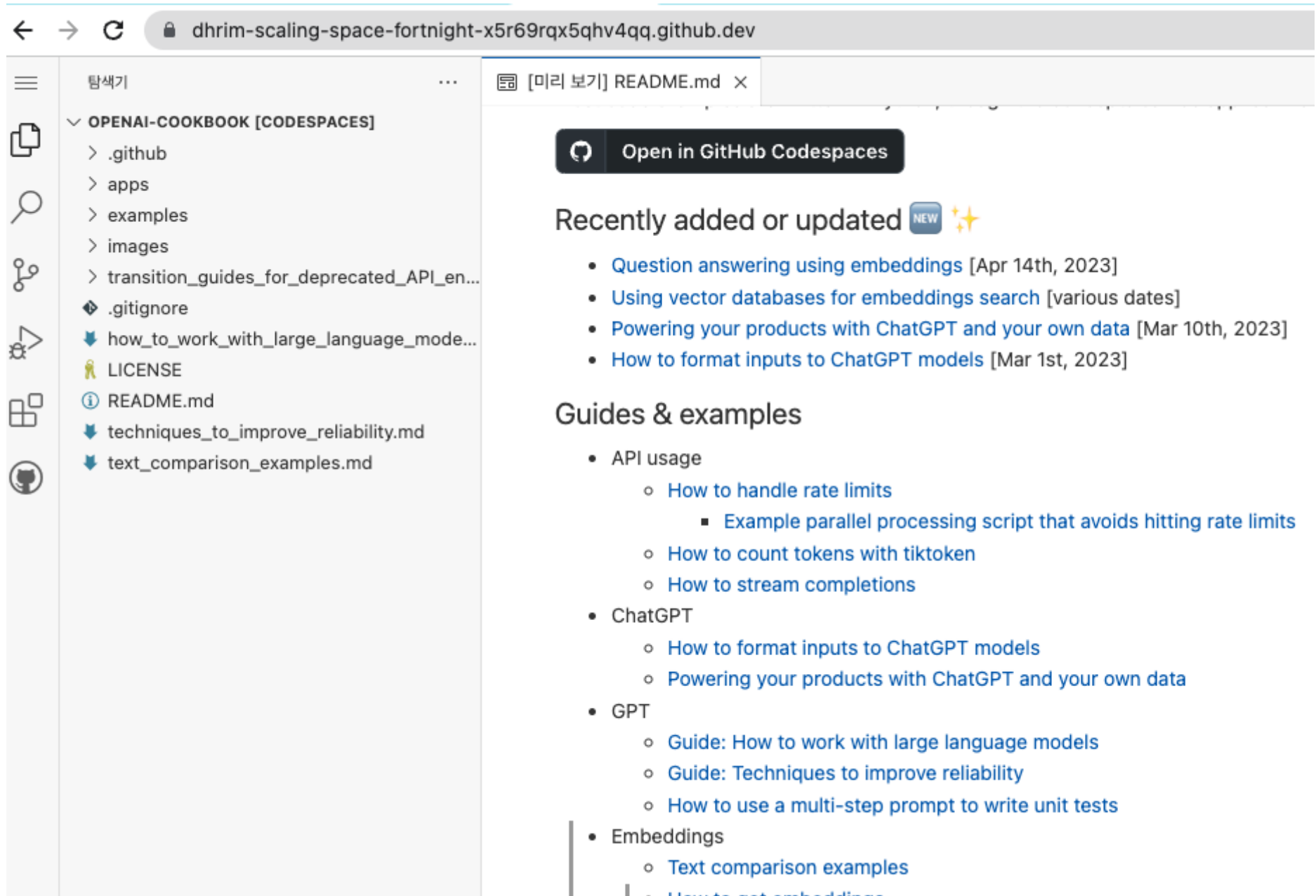
2-core • 4GB RAM • 32GB storage

2-core ▾

Need even more power? [Contact our team](#) to enable 32-core or GPU machines.

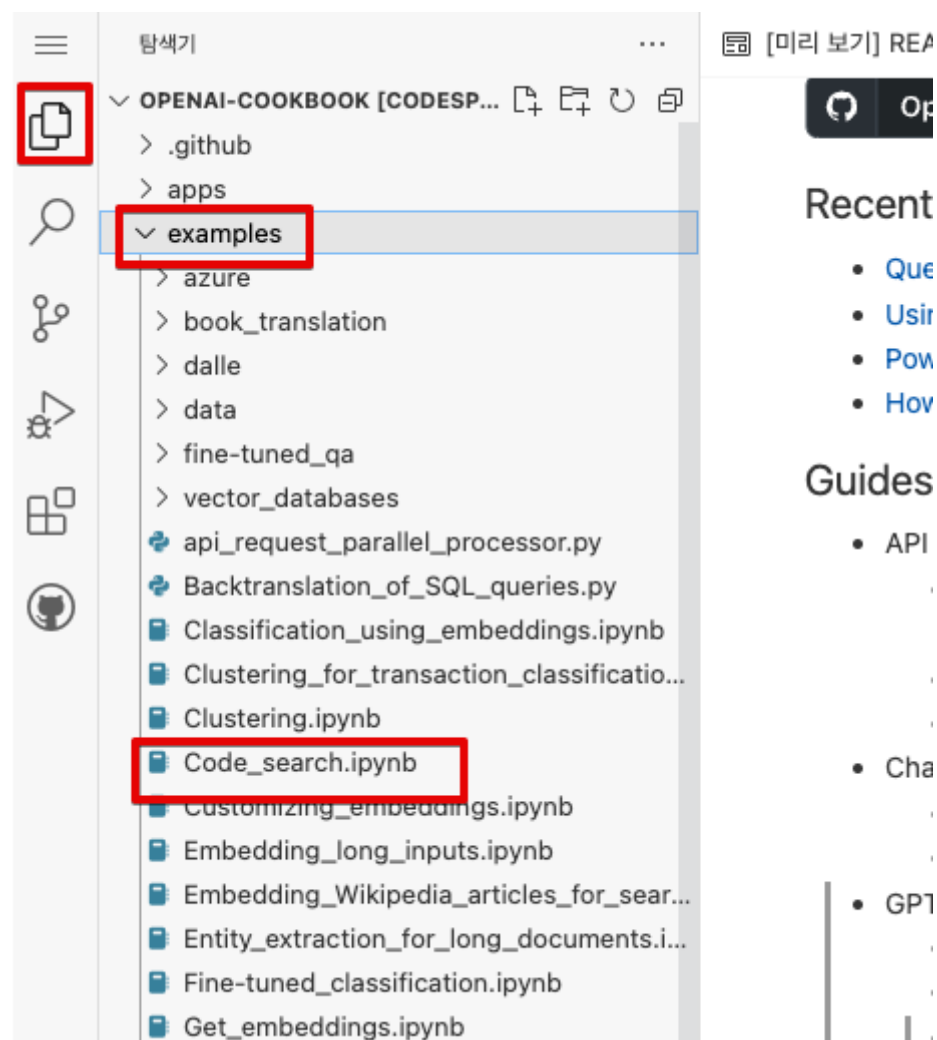
Create codespace

열린 모습



대상 노트북 열기

‘탐색기’ 아이콘 > examples > Code_search.ipynb 클릭



Code search

We index our own [openai-python code repository](#), and show how it can be searched. We implement a simple version of the search algorithm for python files.

```
import os
from glob import glob
import pandas as pd

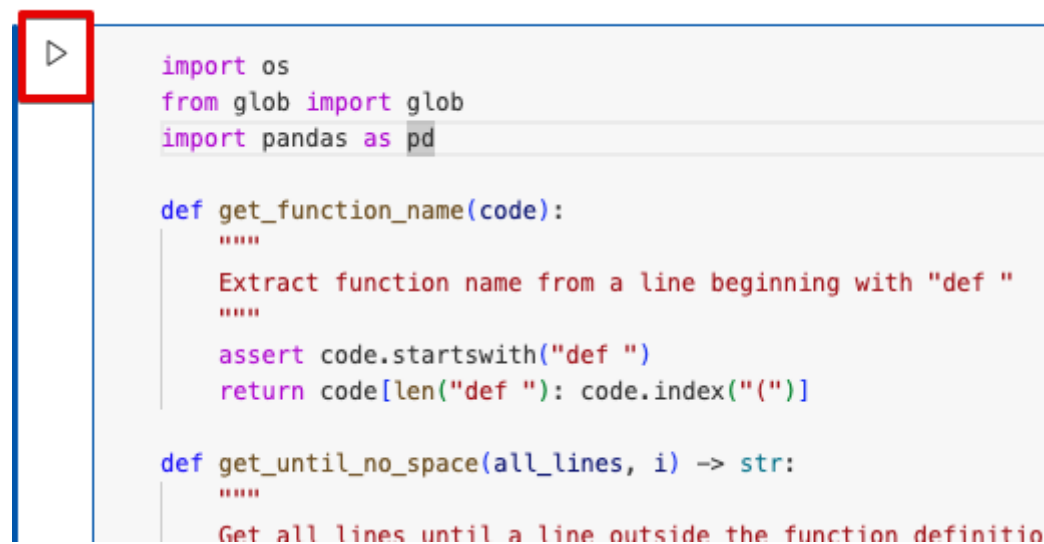
def get_function_name(code):
    """
    Extract function name from a line beginning with "def "
    """
    assert code.startswith("def ")
    return code[len("def "): code.index("(")]

def get_until_no_space(all_lines, i) -> str:
    """
    Get all lines until a line outside the function definition is found.
    """
    ret = [all_lines[i]]
```

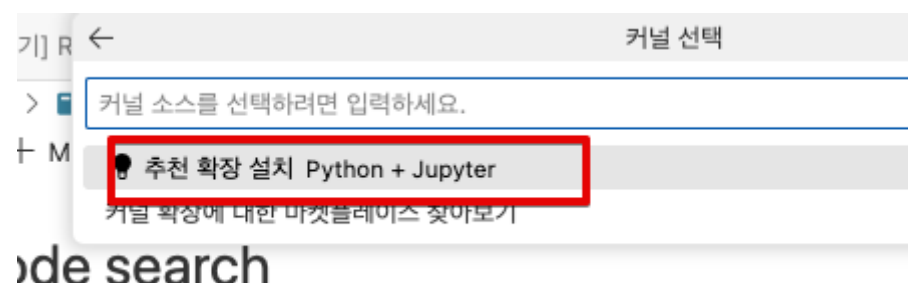
문제 출력 디버그 콘솔 터미널 포트 주석

@dhrim → /workspaces/openai-cookbook (main) \$

좌측 '실행' 아이콘 클릭.

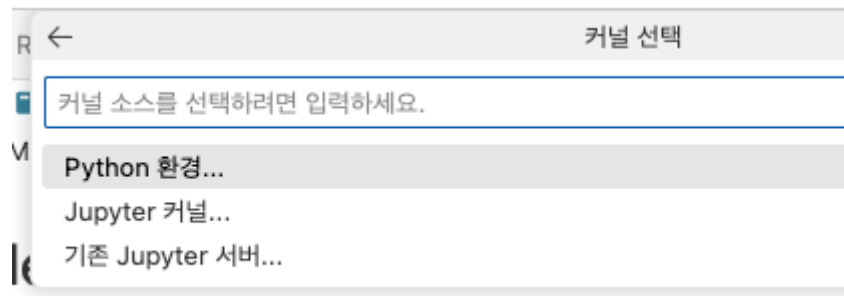


커널 선택에서 '추천 확장 설치 Python + Jupyter' 클릭, 엔터.

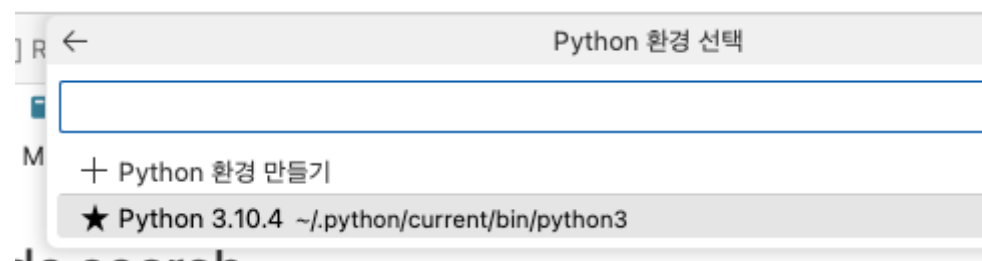


다시 '실행' 아이콘 클릭.

커널 선택에서 'Python 환경...' 클릭.



'Python 3.10.4' 클릭.



이제 코드가 실행된다.

```
print("Double check that you have downloaded the openai-python repo and set the code_root variable correctly.")

all_funcs = []
for code_file in code_files:
    funcs = list(get_functions(code_file))
    for func in funcs:
        all_funcs.append(func)

print("Total number of functions extracted:", len(all_funcs))
```

[2] ✓ 0.1s

... Total number of py files: 0
Double check that you have downloaded the openai-python repo and set the code_root variable correctly.
Total number of functions extracted: 0

+ 코드 + Markdown

모듈 openai 설치

OpenAI의 API를 호출하기 위한 모듈 openai를 설치한다.

상단 '+ 코드' 클릭.

세로 추가된 셀에 다음을 입력하고 좌측 '실행' 아이콘 클릭.

```
!pip install openai
```

We index our own [openai-python code repository](#), and show how it can be searched. We implement python files.

```

[4] !pip install openai
    ✓ 6.8s

... Collecting openai
      Downloading openai-0.27.6-py3-none-any.whl (71 kB)
          _____ 71.9/71.9 kB 3.4 MB/s eta 0:00:00
Requirement already satisfied: requests>=2.20 in /home/codespace/.local/lib/python3.10/
Collecting tqdm (from openai)
      Downloading tqdm-4.65.0-py3-none-any.whl (77 kB)
          _____ 77.1/77.1 kB 3.8 MB/s eta 0:00:00
Collecting aiohttp (from openai)
      Downloading aiohttp-3.8.4-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl
          _____ 1.0/1.0 MB 19.9 MB/s eta 0:00:00:00:01
Requirement already satisfied: charset-normalizer<4,>=2 in /home/codespace/.local/lib/p
Requirement already satisfied: idna<4,>=2.5 in /home/codespace/.local/lib/python3.10/si
Requirement already satisfied: urllib3<1.27,>=1.21.1 in /home/codespace/.local/lib/pyth
Requirement already satisfied: certifi>=2017.4.17 in /home/codespace/.local/lib/python3
Requirement already satisfied: attrs>=17.3.0 in /home/codespace/.local/lib/python3.10/s
Collecting multidict<7.0,>=4.5 (from aiohttp->openai)
      Downloading multidict-6.0.4-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.wh
          _____ 114.5/114.5 kB 6.2 MB/s eta 0:00:00
Collecting async-timeout<5.0,>=4.0.0a3 (from aiohttp->openai)
      Downloading async_timeout-4.0.2-py3-none-any.whl (5.8 kB)
Collecting yarl<2.0,>=1.0 (from aiohttp->openai)
      Downloading yarl-1.9.2-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (26
          _____ 268.8/268.8 kB 12.8 MB/s eta 0:00:00
Collecting frozenlist>=1.1.1 (from aiohttp->openai)
      Downloading frozenlist-1.3.3-cp310-cp310-manylinux_2_5_x86_64.manylinux1_x86_64.manyl
          _____
...
Successfully installed aiohttp-3.8.4 aiosignal-1.3.1 async-timeout-4.0.2 frozenlist-1.3

[notice] A new release of pip is available: 23.1.1 -> 23.1.2
[notice] To update, run: python -m pip install --upgrade pip
Output is truncated. View as a scrollable element or open in a text editor. Adjust cell output settings...

```

다음코드를 입력하여 openai 모듈을 임포트하고 호출하여 사용한다.

```

import openai
openai.api_key = "YOUR KEY"

```