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Connecting to ChatGPT W/ Python

Prerequistes For Project

- Working Python Installation on your device
- PIP (python package manager)
  - Knowledge of python as well as PIP

> Throughout this tutorial I will be assuming the reader knows how to setup there own development enviroment. If the reader needs assistance installing python/pip they sould **refer to links below.**

[Python Windows Install](#) | [Python Mac Install](#) | [Python Linux Install](#)

[PIP Windows Install](#) | [PIP Mac Install](#) | [PIP Linux Install](#)
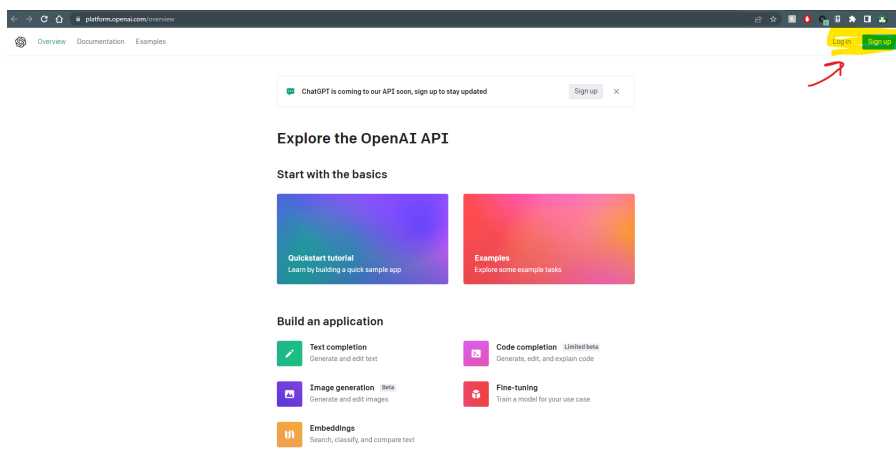
Setting up ChatGPT

Prereqs

- OpenAI account

Generate an API Key

To be able to connect to ChatGPT using Python we will need an API key, this will uniquely identify our OpenAI account to the code we are writing.

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First navigate to [OpenAi Homepage](#)

- In the top right of the screen click login and enter your credentials

  > You may have to verify that you are a human

- Once logged in, click on your account once again in the top right

  - From the dropdown, choose **View API Keys**

  - In the middle of your screen click **Create New Secret Key**

    > **This key will only be displayed once!** It is important that you save it somewhere right away before clicking out of the popup

    If something goes wrong you can always create a new API key

It is very important that you never share your API key w/ anyone else!
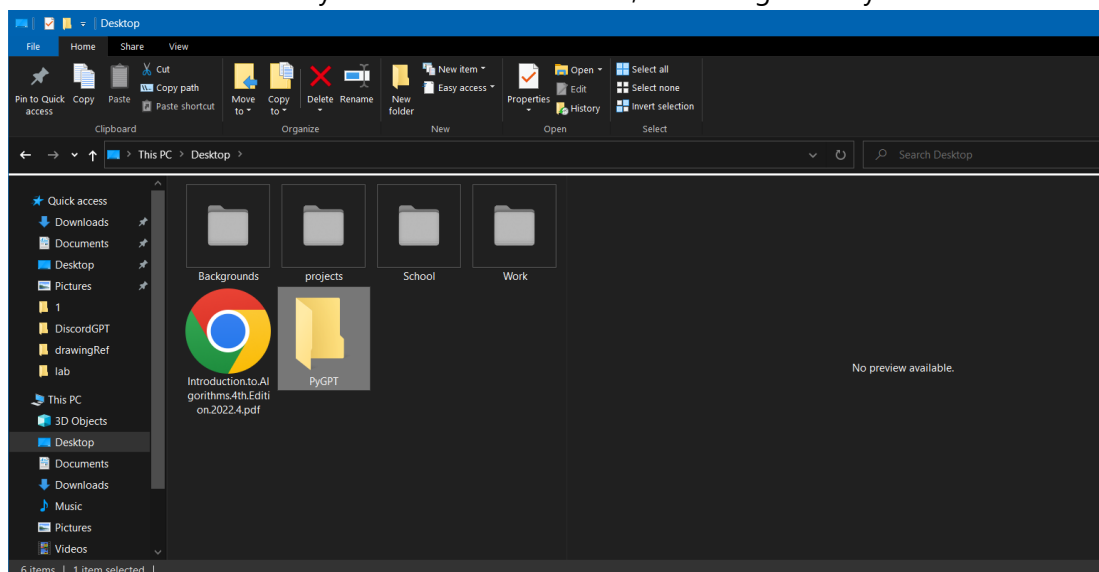

Lets Make Sure Our Key is Working!

- First lets install the necessary packages to test out our key
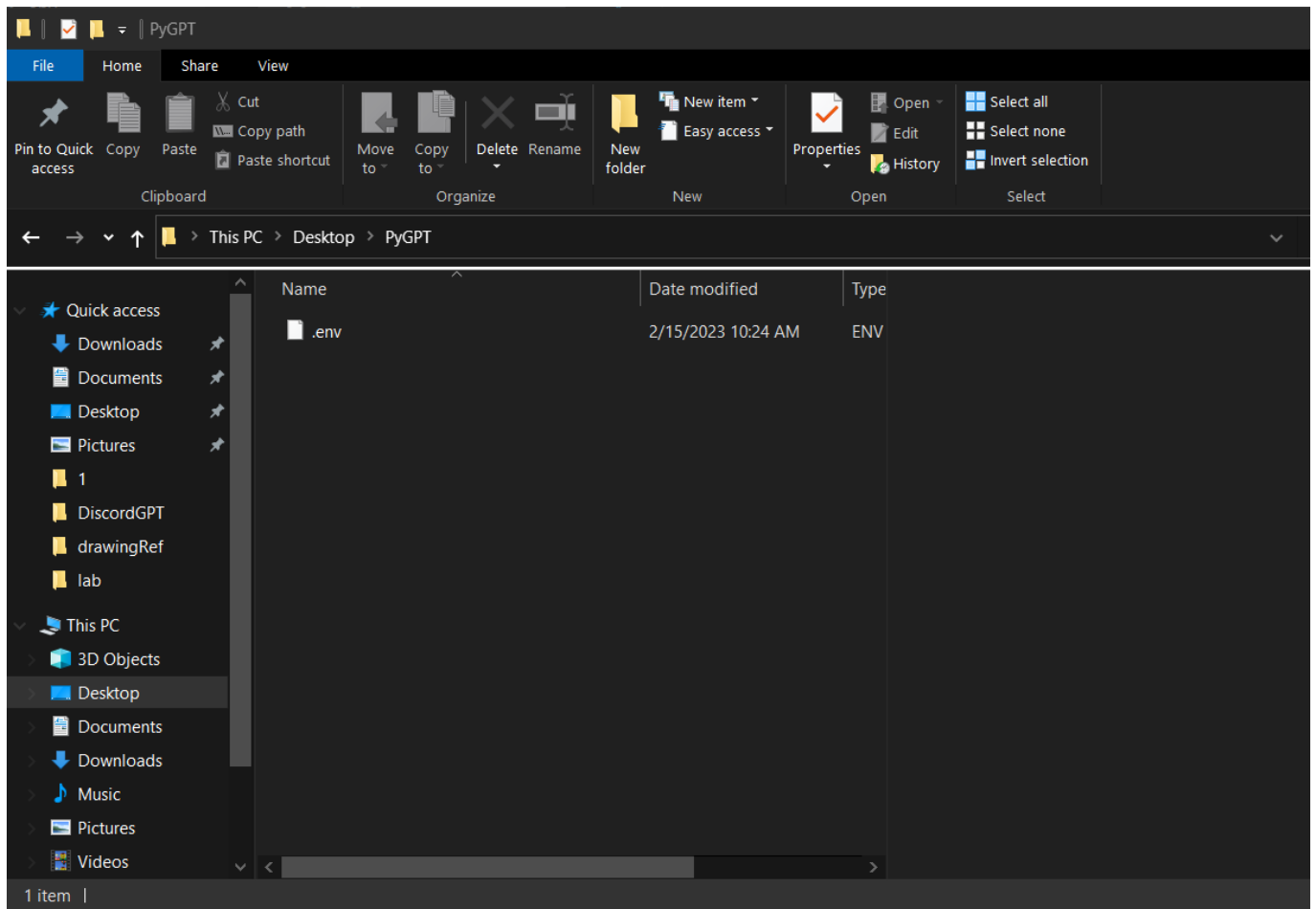 - Within your **console** enter the following pip installs

  ```
  pip install openai
  ```

  ```
  pip install python-dotenv
  ```

- Create a folder wherever you would like this to live, I'm calling mine PyGPT

- Now create a file called **.env** wherever you want this project to live, I reccomend creating a folder to hold these files, call it whatever you like for example PyGPT
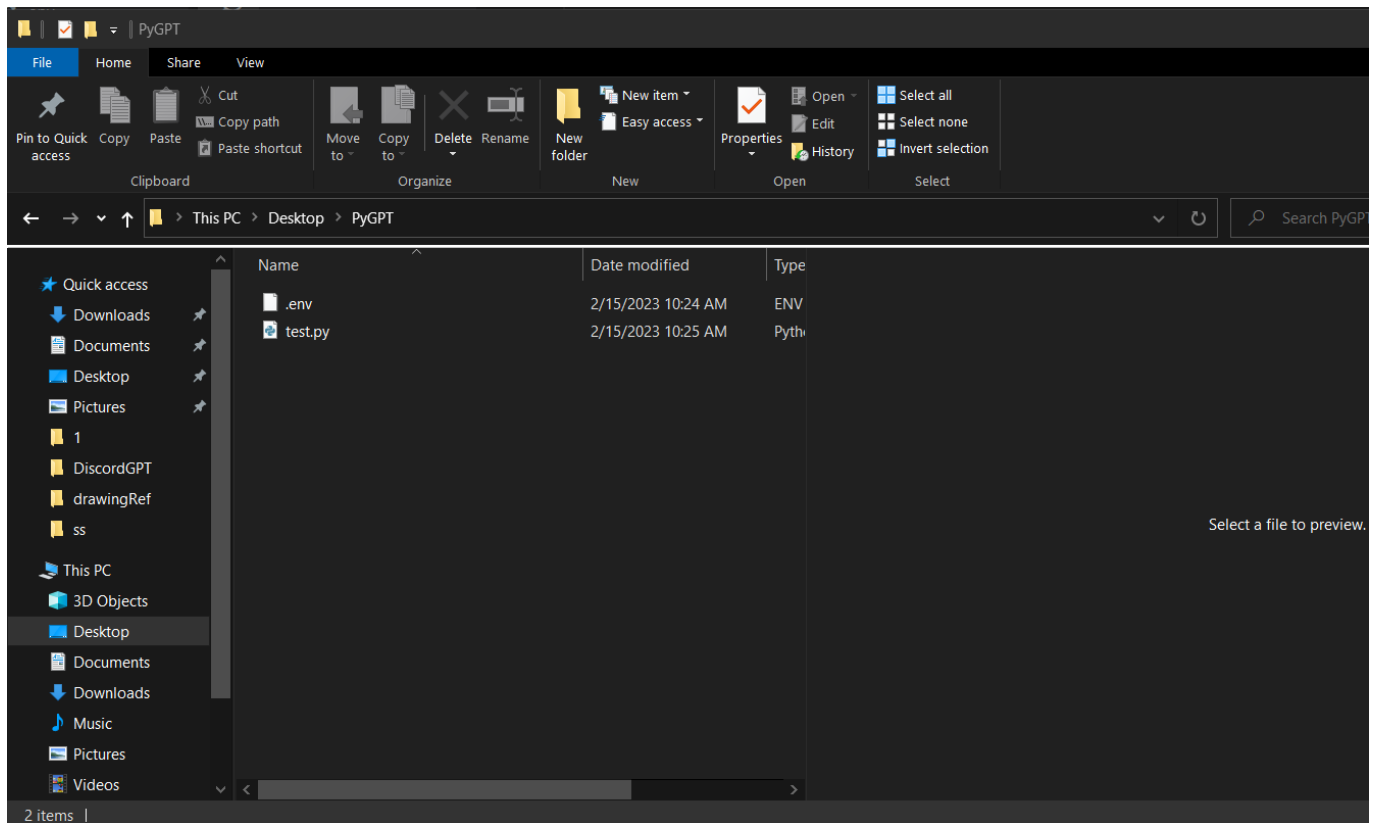

- Inside **.env** add your api key as follows

```
OPENAI_API_KEY={Your api key}
```

> Make sure to replace {your api key} with the key we just generated, **do not include the brackets**

- Create a new **python file called test.py** inside this same directory

  See below

- Import the necessary packages by adding the following lines **into test.py**

```python
import os
import openai
from dotenv import load_dotenv
```

- Next we are going to load our .env file **into test.py** using dotenv

```python
load_dotenv()
```

Now the fun part, lets connect to ChatGPT and generate our first response!

Inside **test.py** lets add the following code

```python
# Load in our API key, because of dotenv we don't have to mess with our actual
# System variables, it loads them in itself
openai.api_key = os.getenv("OPENAI_API_KEY")

# Create a string that holds our prompt
# The prompt can be whatever you'd like
gpt_prompt = "Say hello five different ways"

# Now for the actual query
# While this might look a little overwhelming it isn't anything to bad
```

```python
# The two most import parts here are our engine & prompt
# engine: refers to the data model we are accessing
# prompt: our prompt string, what we are asking GPT
response = openai.Completion.create(
    engine="text-davinci-002",
    prompt=gpt_prompt,
    temperature=0.5,
    max_tokens=256,
    top_p=1.0,
    frequency_penalty=0.0,
    presence_penalty=0.0
)

# print the response from GPT to the console
# response has a lot of extra information included in it, to access just the
response
# we index it in this way
print(response['choices'][0]['text'])
```

For Reference here is the entire **test.py**

```python
import os
import openai
from dotenv import load_dotenv
load_dotenv()

openai.api_key = os.getenv("OPENAI_API_KEY")
gpt_prompt = "Say hello five different ways"

response = openai.Completion.create(
    engine="text-davinci-002",
    prompt=gpt_prompt,
    temperature=0.5,
    max_tokens=256,
    top_p=1.0,
    frequency_penalty=0.0,
    presence_penalty=0.0
)

print(response['choices'][0]['text'])
```

If all goes well here, when we run test.py we should get our response **printed to the console**, heres mine!

```
Hello,

Hi,

Hey,

What's up,

Yo.
```

Congratulations, have fun messing with different prompts and see the power of ChatGPT!