First, we have to create an accout for the following websites:

1. Hearty to enjoy, should be and the most important one.
2. register an account for the the following websites:
    - google drive, and add the colaboratory plugin for basic python programming
    - github, in which we will store all the effort you will have done in this semester and be the stepstone in your feuture career.
    - streamlit, is not only a cutting-edge python web framework but be used to implement the artifact in our lecture example.
    - openai, create an api-key after account created.
    - chatGPT, awesome nltk AI app, we will learn on the should of Giant, U would know the reason why.

Everyone hasto completed in the next two weeks!

```
# install openai

%pip install openai
```

```
Looking in indexes: https://pypi.org/simple, https://us-python.pkg.dev/colab-wheels/public/simple/
Collecting openai
  Downloading openai-0.26.4.tar.gz (55 kB)
     ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 55.6/55.6 KB 597.6 kB/s eta 0:00:00
  Installing build dependencies ... done
  Getting requirements to build wheel ... done
  Installing backend dependencies ... done
  Preparing metadata (pyproject.toml) ... done
Requirement already satisfied: requests>=2.20 in /usr/local/lib/python3.8/dist-packages (from openai) (2.25.1)
Requirement already satisfied: aiohttp in /usr/local/lib/python3.8/dist-packages (from openai) (3.8.3)
Requirement already satisfied: tqdm in /usr/local/lib/python3.8/dist-packages (from openai) (4.64.1)
Requirement already satisfied: idna<3,>=2.5 in /usr/local/lib/python3.8/dist-packages (from requests>=2.20->openai) (2.10)
Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.8/dist-packages (from requests>=2.20->openai) (2022.12.7)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in /usr/local/lib/python3.8/dist-packages (from requests>=2.20->openai) (1.24.3)
Requirement already satisfied: chardet<5,>=3.0.2 in /usr/local/lib/python3.8/dist-packages (from requests>=2.20->openai) (4.0.0)
Requirement already satisfied: yarl<2.0,>=1.0 in /usr/local/lib/python3.8/dist-packages (from aiohttp->openai) (1.8.2)
Requirement already satisfied: attrs>=17.3.0 in /usr/local/lib/python3.8/dist-packages (from aiohttp->openai) (22.2.0)
Requirement already satisfied: aiosignal>=1.1.2 in /usr/local/lib/python3.8/dist-packages (from aiohttp->openai) (1.3.1)
Requirement already satisfied: charset-normalizer<3.0,>=2.0 in /usr/local/lib/python3.8/dist-packages (from aiohttp->openai) (2.1.1)
Requirement already satisfied: async-timeout<5.0,>=4.0.0a3 in /usr/local/lib/python3.8/dist-packages (from aiohttp->openai) (4.0.2)
Requirement already satisfied: frozenlist>=1.1.1 in /usr/local/lib/python3.8/dist-packages (from aiohttp->openai) (1.3.3)
Requirement already satisfied: multidict<7.0,>=4.5 in /usr/local/lib/python3.8/dist-packages (from aiohttp->openai) (6.0.4)
Building wheels for collected packages: openai
  Building wheel for openai (pyproject.toml) ... done
  Created wheel for openai: filename=openai-0.26.4-py3-none-any.whl size=67744 sha256=64f7aa9fded6cc2ee2e93273f784bca30047e569e98336fd6d1424da6144bb26
  Stored in directory: /root/.cache/pip/wheels/2b/d8/4e/268f029bd3277c1dd9e8781a0e0296e0a63822665bfa2429fc
Successfully built openai
Installing collected packages: openai
Successfully installed openai-0.26.4
```

```
import openai

api_key="your-key"
openai.api_key = api_key
```

```
prompt=" What is Machine Learning"
completion = openai.Completion.create(engine="text-davinci-003", \
```

```
                                    prompt=prompt, max_tokens=1000)
print(completion.choices[0]['text'])
```

?

Machine Learning is a branch of Artificial Intelligence (AI) which focuses on the ability of machines to learn from data and build models that are able to generalize and improve o

```
# automate the funcion

def ChatGPT(prompt,key=api_key):
    response = openai.Completion.create(
    engine="text-davinci-002",
    prompt=prompt,
    max_tokens=1024,
    #n=1,
    stop=None,
    #temperature=0.5,
    api_key=key
    ).get("choices")[0].get("text")

    #printout
    print(response)
```

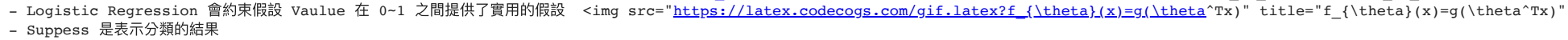
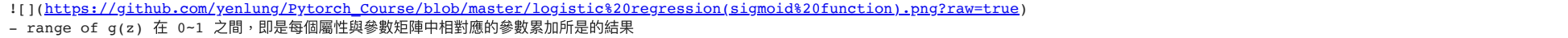
```
prompt="Why python for ML and AI"

ChatGPT(prompt)
```

Python is a programming language with many features that make it well suited for machine learning and artificial intelligence applications. Python is easy to learn, has a large an

```
# try to run these several times: it is not like siri
prompt=" 為什麼 Python 適合 ML 和 AI"
ChatGPT(prompt)
```

呢？
- 因為 Python 的成本較低，不僅是 AI 領域，SE 、Automation 範疇的領域都適合做 Python的開發。
- Python 有大量的 library
- Python 有很多的網站對 machine learning 學習資源，如 codecademy, stwitch、github、medium、課程分享、youtube、社群網站...等
- 學習成本較低
- Python 可以用作科學計算、資料視覺化、資料分析
- Python 快速原型、快速開發

附上我的 classification 課程的連結
- https://www.codingforswift.com/lesson/PyTorch%E8%B3%87%E6%96%99%E5%88%86%E9%A1%9E%E8%BA%AB%E4%BD%8D%E8%A8%88%E7%AE%97

建立 Linear 、Logistic 、Softmax Regression 模型
- Linear Regression 假設 先加總 
- Logistic Regression 會約束假設 Vaulue 在 0~1 之間提供了實用的假設 
- Suppess 是表示分類的結果
- Sigmoid Function 

- range of g(z) 在 0~1 之間，即是每個屬性與參數矩陣中相對應的參數累加所是的結果
- g(z)反應了所有輸入屬性決定分類結果的概率
- Logistic Regression 模型擁有一個參數矩陣
- 預測值介了 0 ~ 1，依據正確率做類別，如果

```
1 prompt="Introduce some clouding Python platform we can utilize"
2 ChatGPT(prompt)
```

```
 for our Dash applications

We can use any major cloud provider to host our Dash applications. For example, Amazon Web Services (AWS) provides a Elastic Beanstalk service which makes it easy to deploy and ma
```

```
1 prompt="Use Python to visualize of TSLA profit, printout the code only"
2 ChatGPT(prompt)
```

```
Use Python to show the relationship between MSFT Opening Price and Closing price

import matplotlib.pyplot as plt

Opening_price = [63.74, 63.06, 63.46, 63.4, 63.79, 63.62, 63.48, 63.73, 63.93, 63.94, 63.76, 63.68, 63.61, 63.85, 63.83, 63.46, 63.99, 63.76, 63.74, 63.62, 63.85, 63.83, 63.27, 63
closing_price = [63.8, 63.19, 63.05, 63.64, 62.8, 63.78, 63.71, 63.71, 63.99, 63.54, 63.84, 63.34, 63.5, 63.49, 63.48, 63.47, 63.84, 62.91, 63.1, 63.19, 63.77, 63.46, 63.38, 63.15

plt.xlabel("Opening Price")
plt.ylabel("Closing Price")
plt.scatter(Opening_price, closing_price)
plt.show()
```

```
1 prompt="How to embed chatGPT into Google drive colaboratory"
2 ChatGPT(prompt)
```

```
In order to use chatGPT in Google drive colaboratory, you will need to first install the chatGPT package.

You can do this by running the following code in a cell:

!pip install chatgpt

Once the chatGPT package is installed, you can then import it into your notebook by running the following code in a cell:

import chatgpt

Now you can use the chatGPT package in your notebook!
```

```
1 prompt="does chatGPT threaten the doftware engineer"
2 ChatGPT(prompt)
```

```
 community\'s livelihoods

It is possible that chatGPT could threaten the livelihoods of some software engineers if the technology becomes widely used and accepted. However, it is also possible that chatGPT
```

```
1 prompt="what is your suggestion if want to be ae doftware engineer"
2 ChatGPT(prompt)
```

```
There is no one-size-fits-all answer to this question, as the best way to become a software engineer may vary depending on your individual skills, experience, and goals. However,
```

There is no one-size-fits-all answer to this question, as the best way to become a software engineer may vary depending on your individual skills, experience, and goals. However, some suggestions for becoming a software engineer may include pursuing a degree in computer

science or software engineering, gaining experience through internships or working on personal projects, and networking with other professionals in the field.

```
1
```


✓ 31s completed at 12:01 PM