**Python**

**期末報告**

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程式碼說明

程式碼&畫面

import requests

from bs4 import BeautifulSoup

gasgrow\_lst=[]

evgrow\_lst=[]

tslagrow\_lst=[]

month\_lst=[]

def main():

url\_gas = 'https://stat.thb.gov.tw/hb01/webMain.aspx?sys=220&ym=10811&ymt=10911&kind=21&type=1&funid=1120009&cycle=1&outmode=0&compmode=1&outkind=1&fld9=1&cod00=1&cod11=1&rdm=R179112'

resp\_gas = requests.get(url\_gas)

soup\_gas = BeautifulSoup(resp\_gas.text, 'html.parser')

resp\_gas.encoding = 'utf-8'

url\_ev = 'https://stat.thb.gov.tw/hb01/webMain.aspx?sys=220&ym=10811&ymt=10911&kind=21&type=1&funid=1120009&cycle=1&outmode=0&compmode=1&outkind=1&fld9=1&cod00=1&cod13=1&rdm=R151567'

resp\_ev = requests.get(url\_ev)

soup\_ev = BeautifulSoup(resp\_ev.text, 'html.parser')

resp\_ev.encoding = 'uft-8'

url\_tsla = 'https://stat.thb.gov.tw/hb01/webMain.aspx?sys=220&ym=10811&ymt=10911&kind=21&type=1&funid=1120009&cycle=1&outmode=0&compmode=1&outkind=1&fld9=1&cod051=1&rdm=R102891'

resp\_tsla = requests.get(url\_tsla)

soup\_tsla = BeautifulSoup(resp\_tsla.text, 'html.parser')

resp\_tsla.encoding = 'uft-8'

#table\_gas=soup\_gas.find('table','tblcls')

#table\_ev=soup\_ev.fing('table','tblcls')

#table\_tsla=soup\_tsla.fing('table','tblcls')

#trs\_gas = table\_gas.find('tr')

#trs\_ev = table\_ev.find('tr')

#trs\_tsla = table\_tsla.find('tr')

gas\_data = soup\_gas.find\_all('td', class\_='styrate stydata')

ev\_data = soup\_ev.find\_all('td',class\_='styrate stydata')

tsla\_data = soup\_tsla.find\_all('td',class\_='styrate stydata')

month\_data = soup\_gas.find\_all('th', class\_='stycode')

for gas in gas\_data:

gasgrow\_lst.append(float(gas.text.replace(',','')))

print(gas.text)

print("--------End Gas--------")

for ev in ev\_data:

evgrow\_lst.append(float(ev.text.replace(',','')))

print(ev.text)

print("--------End EV--------")

for tsla in tsla\_data:

tslagrow\_lst.append(float(tsla.text.replace(',','')))

print(tsla.text)

print("--------End TSLA--------")

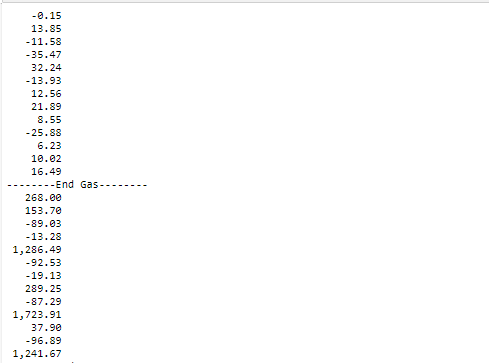
for month in month\_data:

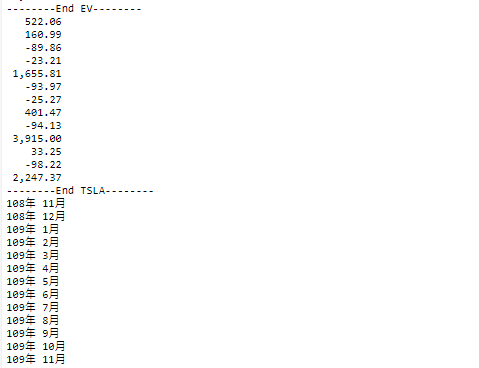
month\_lst.append(month.text)

print(month.text)

if \_\_name\_\_ == '\_\_main\_\_':

main()





import matplotlib

import matplotlib.pyplot as plt

from matplotlib.font\_manager import FontProperties

plt.rcParams['font.sans-serif'] = ['Microsoft JhengHei'] #設定字體

plt.rcParams['axes.unicode\_minus'] = False

plt.figure(figsize = (15,5)) #調整大小，避免x軸字重疊

plt.title("燃油車、電動車月成長比率") #標題

plt.xlabel("年月份") #x軸名稱

plt.ylabel("成長率") #y軸名稱

plt.ylim(-300,4000)

gas,=plt.plot(month\_lst, gasgrow\_lst,'o-',c = "r",)

ev,=plt.plot(month\_lst, evgrow\_lst,'o-')

tsla,=plt.plot(month\_lst,tslagrow\_lst,'o-',alpha=0.3)

plt.legend(handles=[gas,ev,tsla],labels=['Gas','EV','TSLA'],loc='best')

plt.show()

