



# Web Crawler Practice

## Facebook Crawler



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# Outline

- 目標設定
- 環境及工具的準備
- **FB爬蟲架構介紹**
- 實戰



# 目標設定

# 目標設定：明確要做什麼

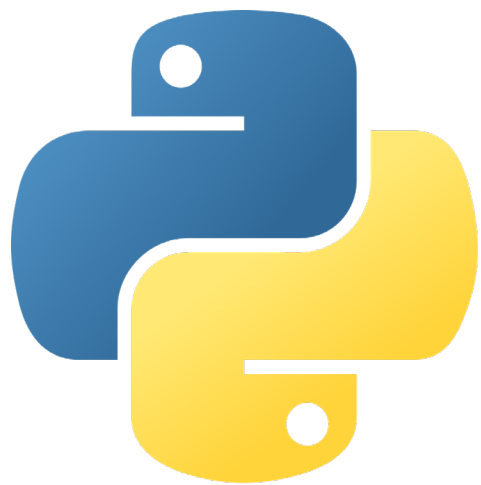


- (背景)你有一個曖昧對象，他/她是一個不折不扣的吃貨，你們已經曖昧一個月了
- 現在你有一個煩惱，你不知道帶他/她去吃什麼好吃的了，你知道好吃的地方都已經去過(沒有好吃的就不和你曖昧，堅持三個月就和你在一起)
- 於是你想到借助廣大網友的力量，去Facebook的美食社團找別人分享的好吃的
- 但是慢慢滑你覺得太麻煩，能不能利用Python爬蟲一次抓下來整理好呢？



# 環境及工具準備

# 環境、套件、工具



Python



Selenium



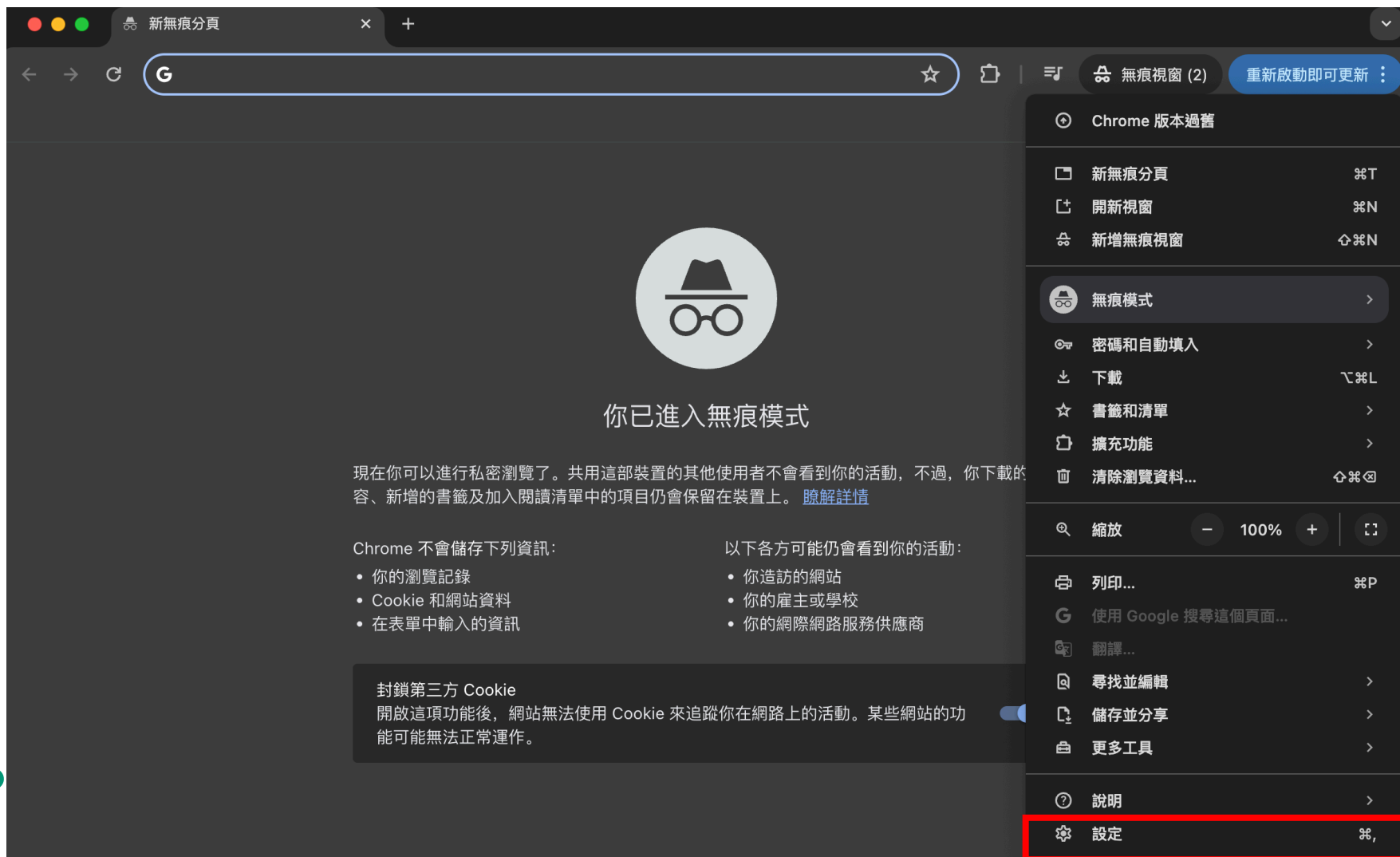
ChromeDriver



# 取得ChromeDriver

方法一：自己下載

# 確認Chrome版本





# 確認 Chrome 版本

The screenshot shows the Chrome Settings application. On the left is a navigation menu with various settings categories. The '關於 Chrome' (About Chrome) option at the bottom of this menu is highlighted with a red box. The main content area on the right is titled '關於 Chrome' and displays the Google Chrome logo and the text '正在更新 Chrome' (Updating Chrome). Below this, the current version number '版本 121.0.6167.160 (正式版本) (arm64)' is displayed and highlighted with a red box. Further down, there are links for '前往 Chrome 說明頁面', '回報問題', and '隱私權政策'. At the bottom of the main content area, there is a section with copyright information for Google Chrome (2024) and a link to the '服務條款' (Terms of Service).

設定

搜尋設定

關於 Chrome

Google Chrome

正在更新 Chrome

版本 121.0.6167.160 (正式版本) (arm64)

前往 Chrome 說明頁面

回報問題

隱私權政策

Google Chrome  
Copyright 2024 Google LLC. 保留所有權利。  
Chrome 的開發仰賴 [Chromium](#) 開放原始碼計畫與其他 [開放原始碼軟體](#) 的協助才得以完成。  
[服務條款](#)

你與 Google

自動填入和密碼

隱私權和安全性

效能

外觀

搜尋引擎

預設瀏覽器

起始畫面

語言

下載

無障礙設定

系統

重設設定

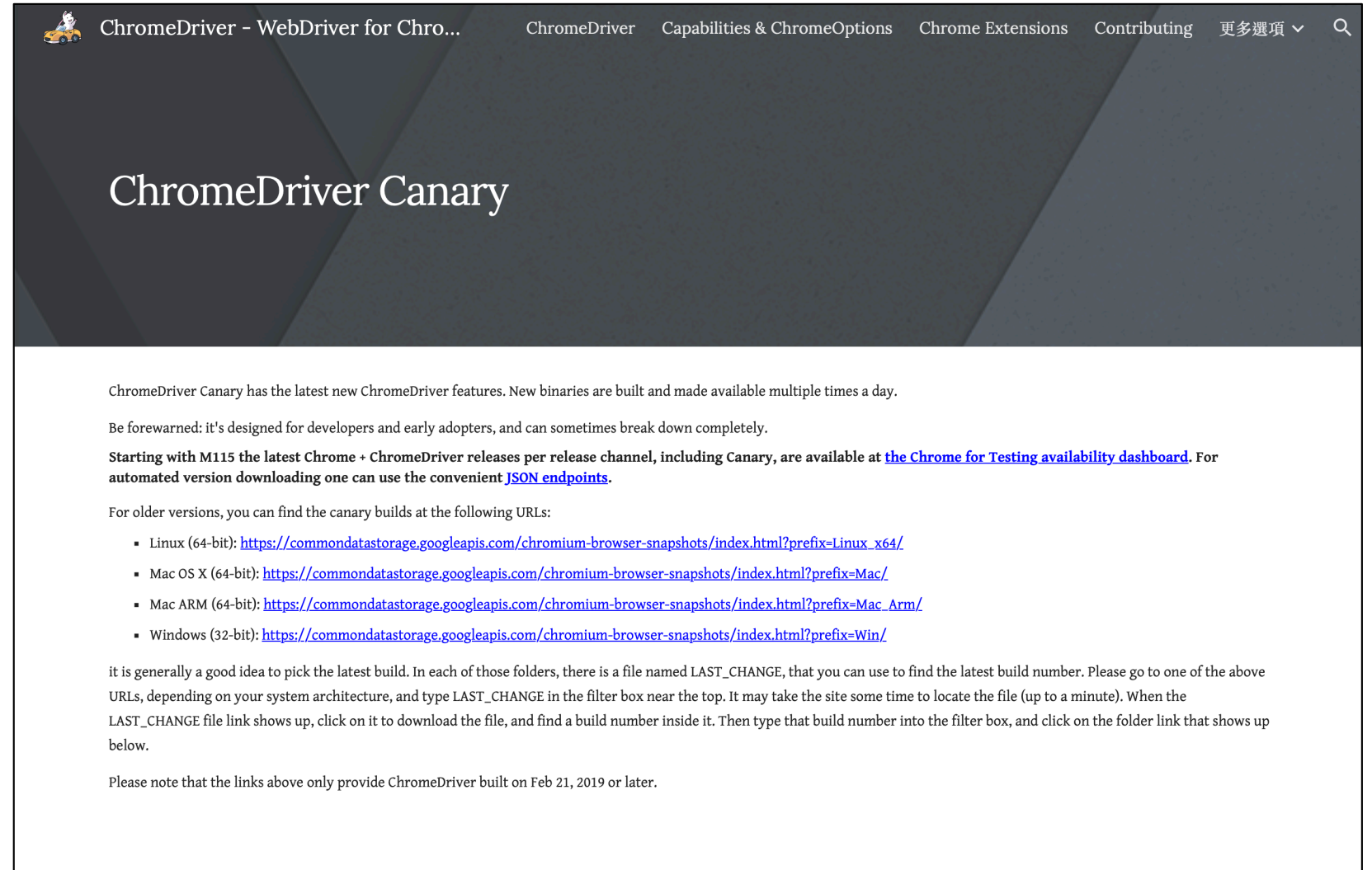
擴充功能

關於 Chrome

# 打開ChromeDrive官網

■ ChromeDrive  
下載網址：  
<https://chromedriver.chromium.org/chrome-driver-canary>

■ 注意作業系統  
及位元數

A screenshot of the ChromeDriver Canary website. The page has a dark header with the title "ChromeDriver - WebDriver for Chrome..." and navigation links for "ChromeDriver", "Capabilities & ChromeOptions", "Chrome Extensions", "Contributing", and "更多選項". The main content area has a dark background with the text "ChromeDriver Canary" in white. Below this, there is a white text area containing information about the canary builds, including a warning that they are for developers and early adopters, and a list of URLs for downloading canary builds for Linux, Mac OS X, Mac ARM, and Windows. The page also includes a note about the build date (Feb 21, 2019 or later).

# 注意作業系統及位元數

確認系統與位元數後點擊對應網址



For older versions, you can find the canary builds at the following URLs:

- Linux (64-bit): [https://commondatastorage.googleapis.com/chromium-browser-snapshots/index.html?prefix=Linux\\_x64/](https://commondatastorage.googleapis.com/chromium-browser-snapshots/index.html?prefix=Linux_x64/)
- Mac OS X (64-bit): <https://commondatastorage.googleapis.com/chromium-browser-snapshots/index.html?prefix=Mac/>
- Mac ARM (64-bit): [https://commondatastorage.googleapis.com/chromium-browser-snapshots/index.html?prefix=Mac\\_Arm/](https://commondatastorage.googleapis.com/chromium-browser-snapshots/index.html?prefix=Mac_Arm/)
- Windows (32-bit): <https://commondatastorage.googleapis.com/chromium-browser-snapshots/index.html?prefix=Win/>

# 下載ChromeDrive

## Index of *chromium-browser-snapshots/Mac\_Arm/*

Filter:








Name	Last Modified	Size	Commit Position	Commit
 1210557				
 1210591				
 1210611				
 1210634				
 1210651				
 1210671				
 1210683				
 1210700				
 1210718				
 1210739				
 1210752				
 1210777				
 1210807				

選擇與Chrome版本相近的即可

# 下載ChromeDrive

## Index of *chromium-browser-snapshots/Mac\_Arm/1210634/*

Filter:

Name	Last Modified	Size	Commit Position	Commit
<a href="#">Parent Directory</a>				
 <a href="#">REVISIONS</a>	2023-10-17 05:04:11	661 bytes	-	-
 <a href="#">chrome-mac.zip</a>	2023-10-17 05:04:08	129.23 MB	-	-
 <a href="#">chromedriver_mac64.zip</a>	2023-10-17 05:04:13	8.45 MB	-	-
 <a href="#">content-shell.zip</a>	2023-10-17 05:04:21	102.22 MB	-	-
 <a href="#">devtools-frontend.zip</a>	2023-10-17 05:04:34	38.46 MB	-	-
 <a href="#">remoting-me2me-host-mac.zip</a>	2023-10-17 05:04:36	53.49 MB	-	-
 <a href="#">updater.zip</a>	2023-10-17 05:04:39	32.11 MB	-	-

點擊會後自動下載

# Python 啟動 ChromeDriver — 測試

```
from selenium import webdriver
from selenium.webdriver.chrome.service import Service
driver_file = Service('../chromedriver_mac64/chromedriver') # 你下載ChromeDriver
的位置
driver = webdriver.Chrome(service=driver_file)
```



# 取得ChromeDriver

方法二 (推薦) : webdriver-manager套件

# 安裝webdriver-manager套件

```
!pip install webdriver-manager
```

```
from selenium import webdriver  
from selenium.webdriver.chrome.service import Service  
from webdriver_manager.chrome import ChromeDriverManager  
driver_file = ChromeDriverManager().install()  
driver = webdriver.Chrome(service=Service(driver_file))
```





開始爬蟲

# 確定網站

■ URL :

[https://www.facebook.com/groups/foodspick/?locale=zh\\_TW&checkpoint\\_src=any](https://www.facebook.com/groups/foodspick/?locale=zh_TW&checkpoint_src=any)

facebook

電子郵件地址或手機號碼 密碼 登入 忘記帳號?

鄉民食堂美食社團 加入社團

劉威承 1天 · 公開

堪稱最強台北長島冰茶酒吧人氣破表啦！  
遠近馳名的西門町，一直是許多國內外觀光客必訪的指標性景點  
漫步在各條街道上可見眾多特色餐廳  
無論是白天或晚上的吃喝玩樂都能一次滿足  
與朋友們在夜晚的西門小酌絕對不能少！..... 查看更多

冰茶專賣  
Iced Tea Shop

DALANG.TW

【冰茶專賣店】台北最強長島冰茶酒吧推薦，世界各地特色融入調酒，大啖懷舊台式古早味美食！ - 達浪的日常手札

1 讚 留言 分享

Kai Wei Chou 1天 · 公開

澎湖花火節5/2正式開始~~  
澎湖馬公市區必吃美食

關於

鄉民食堂美食粉絲團的FB社團  
歡迎大家介紹各種美食，這些好吃的餐廳也會作為小編介紹的參考喔!!..... 查看更多

公開  
任何人都可以查看社團成員名單和他們發佈的貼文。

開放搜尋  
所有人都能找到這個社團。

近期影音內容

登入或註冊 Facebook 即可和親朋好友以及認識的人聯繫。

登入 或 建立新帳號

# 利用Python打開網站

```
driver_file = ChromeDriverManager().install()
driver = webdriver.Chrome(service=Service(driver_file))
url =
"https://www.facebook.com/groups/foodspick/?locale=zh_TW&checkpoint_src=any"
driver.get(url)
```

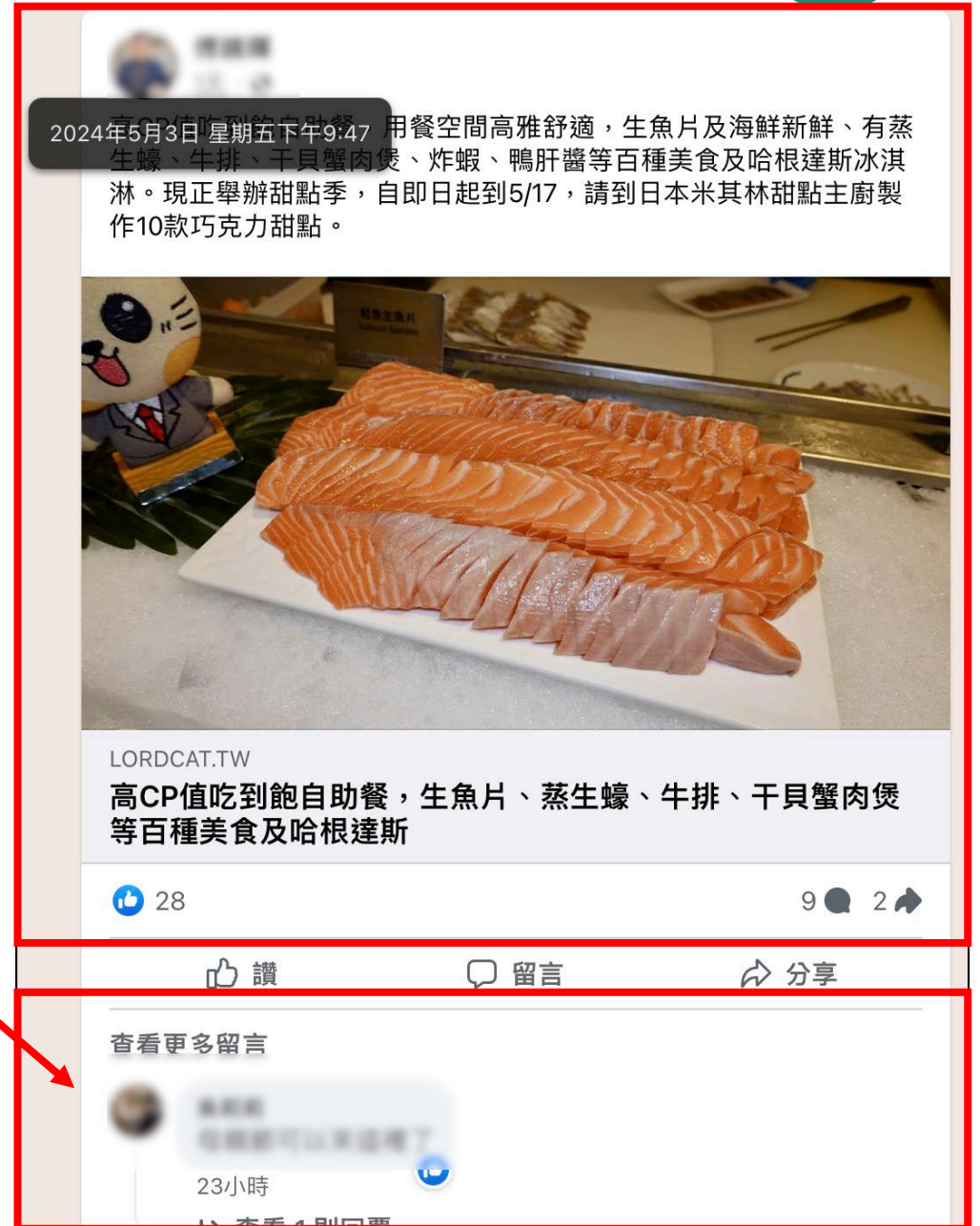
■ 社群打開後請手動登陸帳號

# 爬蟲流程建議


- Step-1: 列出要抓取的資料
- Step-2: 分析Chrome中網頁原始碼的架構
- Step-3: 觀察Chrome中目標資料element的特徵
- Step-4: 搜索element，搜索的element的方式非必要**一律用CSS Selector**
- Step-5: 從element中提取資料

# 要抓取的資料

- 貼文相關內容
- 回覆相關內容



2024年5月3日 星期五下午9:47 用餐空間高雅舒適，生魚片及海鮮新鮮、有蒸生蠔、牛排、干貝蟹肉煲、炸蝦、鴨肝醬等百種美食及哈根達斯冰淇淋。現正舉辦甜點季，自即日起到5/17，請到日本米其林甜點主廚製作10款巧克力甜點。



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高CP值吃到飽自助餐，生魚片、蒸生蠔、牛排、干貝蟹肉煲等百種美食及哈根達斯

28 9 2

讚 留言 分享

查看更多留言

23小時

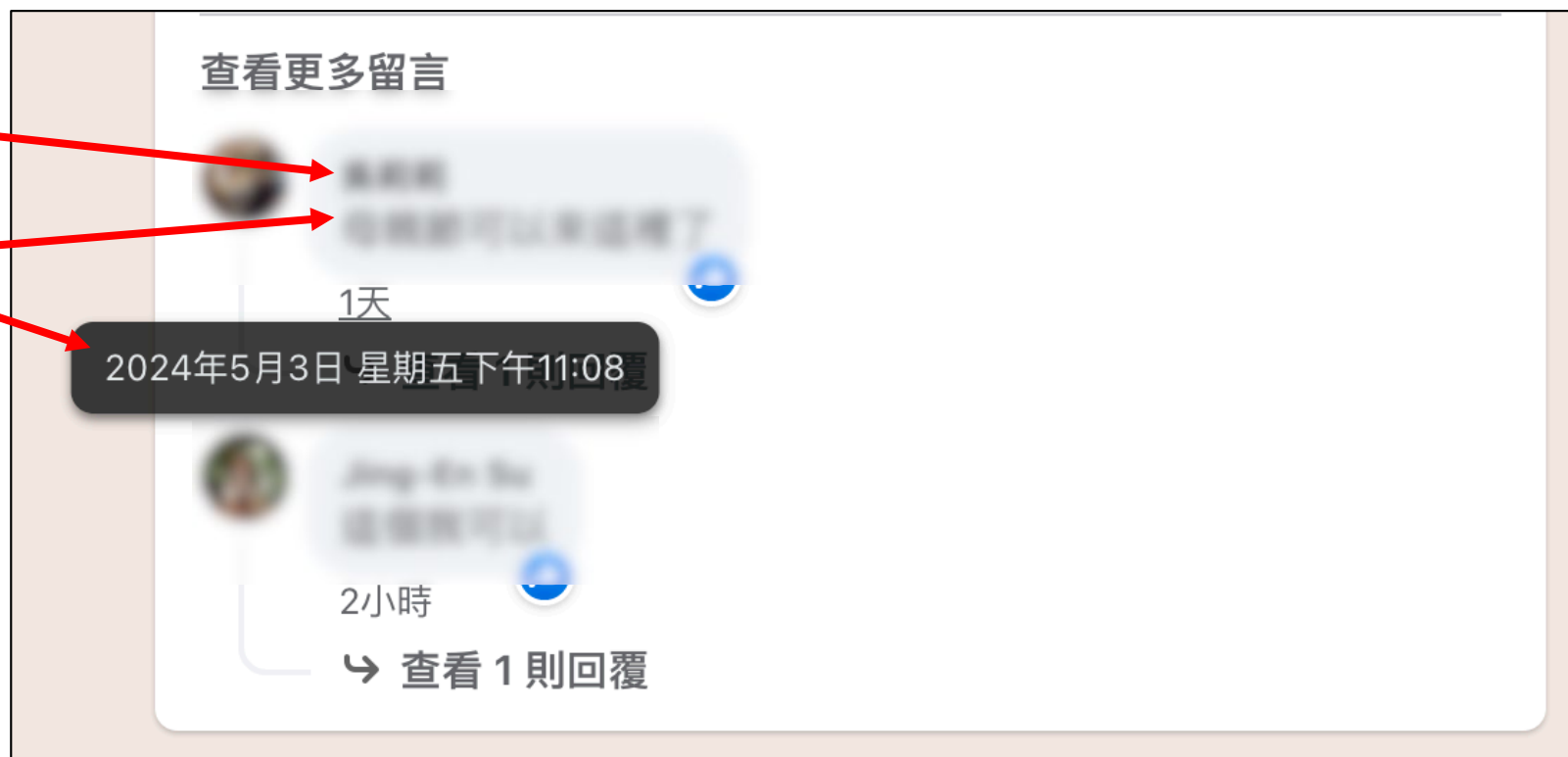
# 貼文相關內容

- 貼文人
- 貼文日期
- 貼文內容
- 按讚數
- 留言數
- 轉發數



# 留言相關內容

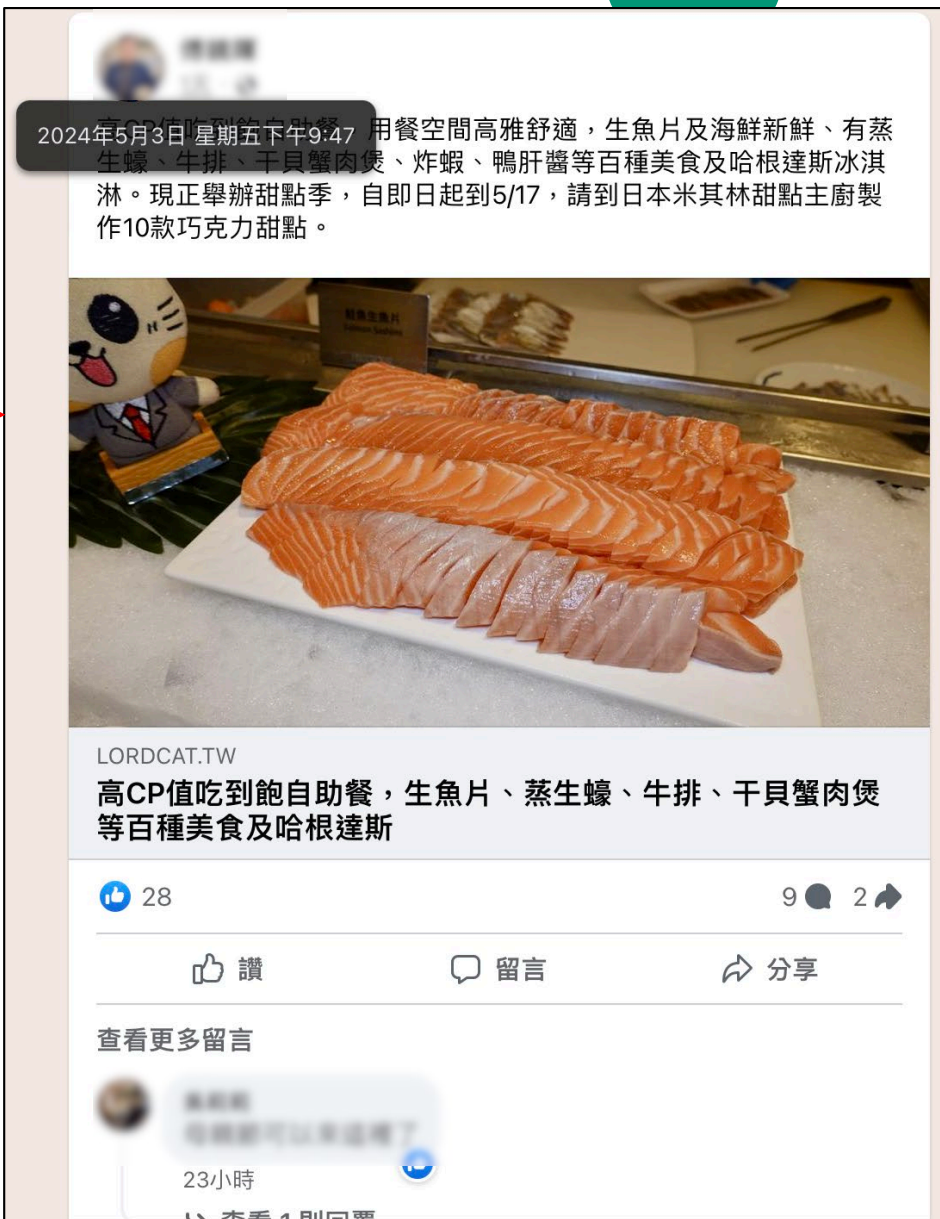
- 留言人
- 留言日期
- 留言內容



# Step1:分析網頁原始碼架構

```
▼ <div role="feed">
  <div class="x19f6ikt x169t7cy xsag5q8 x1swvt13"></div>
  ▶ <div class="x1yztbdb x1n2onr6 xh8yej3 x1ja2u2z">... </div>
  ▶ <div class="x1yztbdb x1n2onr6 xh8yej3 x1ja2u2z">... </div>
  ▶ <div class="x1yztbdb x1n2onr6 xh8yej3 x1ja2u2z">... </div>
  ▶ <div class="x1yztbdb x1n2onr6 xh8yej3 x1ja2u2z">... </div>
  ▶ <div class="x1yztbdb x1n2onr6 xh8yej3 x1ja2u2z">... </div>
  ▶ <div class="x1yztbdb x1n2onr6 xh8yej3 x1ja2u2z">... </div>
  ▶ <div class="x1yztbdb x1n2onr6 xh8yej3 x1ja2u2z">... </div>
  ▶ <div class="x1yztbdb x1n2onr6 xh8yej3 x1ja2u2z">... </div>
  ▶ <div class="x1yztbdb x1n2onr6 xh8yej3 x1ja2u2z">... </div>
  ▶ <div class="x1yztbdb x1n2onr6 xh8yej3 x1ja2u2z">... </div>
```

- 「feed」 以下是所有已載貼文
- 從第二行開始是真正貼文





# Python Code

```
# 找出已載入的所有貼文(feed)
elements = driver.find_elements(By.CSS_SELECTOR, "div[class='x1yztbdb x1n2onr6
xh8yej3 x1ja2u2z']")
elements
feed = elements[7] # 選出要抓的貼文
move_element_be_visible(driver, feed) # 將貼文移動至可見處
```

Note: `move_element_be_visible` 是自己寫的function

# 分析網頁原始碼架構

- 進一步分析架構，找到相關內容分別的位置

```
▼ <div class="xlyztbdb x1n2onr6 xh8yej3 x1ja2u2z"> == $0
  ▼ <div class="x1n2onr6 x1ja2u2z">
    ▼ <div class>
      ▼ <div class>
        ▼ <div aria-describedby=":r28: :r29: :r2a: :r2c: :r2b:" aria-labelledby=":r27:" class="x1a2a7pz" role="article">
          ▼ <div class="x78zum5 xdt5ytf"> flex
            ▼ <div class="x9f619 x1n2onr6 x1ja2u2z">
              ▼ <div class="x78zum5 x1n2onr6 xh8yej3"> flex
                ▼ <div class="x9f619 x1n2onr6 x1ja2u2z x1jx94hy x1qpq9i9 xdney7k x u5ydu1 xt3gfkd xh8yej3 x6ikm8r x10wlt62 xquyuld" style="border-radius: max(0px, min(var(--card-corner-radius), calc((100vw - 4px - 100%) * 9999))) / var(--card-corner-radius);">
                  ▼ <div>
                    <div></div>
                  ▼ <div>
                    ▼ <div class="html-div xe8uvvx xdj266r x11i5rnm xat24cr x1mh8g0r xexx8yu x4uap5 x18d9i69 xkhd6sd">
                      ▼ <div class="html-div xe8uvvx xdj266r x11i5rnm xat24cr x1mh8g0r xexx8yu x4uap5 x18d9i69 xkhd6sd">
                        <div class></div>
                        ▶ <div class="html-div xe8uvvx xdj266r x11i5rnm xat24cr x1mh8g0r xexx8yu x4uap5 x18d9i69 xkhd6sd"> ... </div>
                        ▶ <div class="html-div xe8uvvx xdj266r x11i5rnm xat24cr x1mh8g0r xexx8yu x4uap5 x18d9i69 xkhd6sd"> ... </div>
                        ▶ <div> ... </div>
```

# 分析網頁原始碼架構

```
▶ <div class="html-div xe8uvvx xdj266r x11i5rnm xat24cr x1mh8g0r xexx8yu x4uap5 x18d9i69 xkhd6sd"> ... </div>  
▶ <div class="html-div xe8uvvx xdj266r x11i5rnm xat24cr x1mh8g0r xexx8yu x4uap5 x18d9i69 xkhd6sd"> ... </div>  
▶ <div> ... </div>
```



高CP值吃到飽自助餐，用餐空間高雅舒適，生魚片及海鮮新鮮、有蒸生蠔、牛排、干貝蟹肉煲、炸蝦、鴨肝醬等百種美食及哈根達斯冰淇淋。現正舉辦甜點季，自即日起到5/17，請到日本米其林甜點主廚製作10款巧克力甜點。



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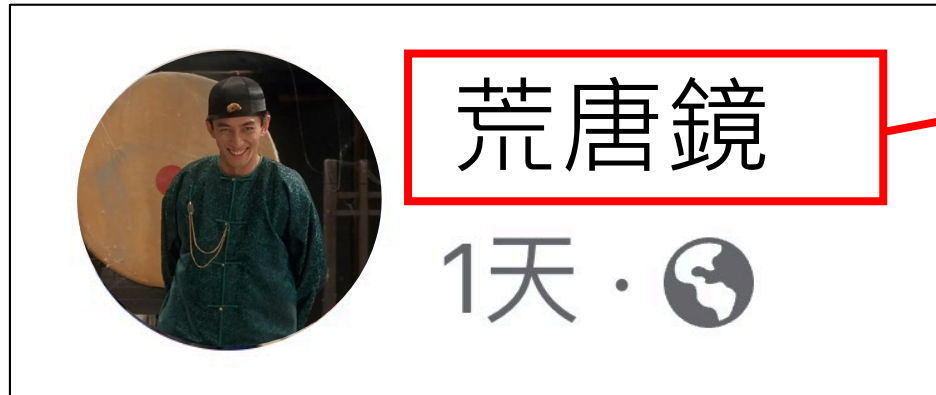
28 9 2

讚 留言 分享

查看更多留言



# 貼文人



```
▼ <h2 id=":r4b:" class="html-h2 xe8uv  
vx x11i5rnm xat24cr x1mh8g0r xexx8y  
u x4uap5 x18d9i69 xkhd6sd x1vvkbs x  
1heor9g x1qlqyl8 x1pd3egz x1a2a7pz  
x1gslohp x1yc453h">  
▼ <span class="xt0psk2">
```

# 貼文發佈人

```
feed_man = feed.find_elements(By.CSS_SELECTOR,  
"h2>span[class='xt0psk2']")[0].text  
print(feed_man)
```

# 貼文時間



- 滑鼠要移動到上面才會顯示
- 顯示的element位置不確定

# 貼文時間

```
locator = "div[class='xu06os2 x1ok221b'] > span[dir='auto'] > span > span > span > a[role='link'][tabindex='0']"  
element = feed.find_elements(By.CSS_SELECTOR, locator)[0]  
mouse_move_to(driver, element)  
time.sleep(1) # 等待網頁反應  
feed_time = driver.find_elements(By.CSS_SELECTOR, "div[role='tooltip']")[0].text  
print(feed_time)
```

# 貼文內容

高CP值吃到飽自助餐，用餐空間高雅舒適，生魚片及海鮮新鮮、有蒸生蠔、牛排、干貝蟹肉煲、炸蝦、鴨肝醬等百種美食及哈根達斯冰淇淋。現正舉辦甜點季，自即日起到5/17，請到日本米其林甜點主廚製作10款巧克力甜點。

## # 貼文內容

```
locator = "div[dir='auto'] > div[class='x1iorvi4 x1pi30zi x1l90r2v x1swvt13'] > span[dir='auto']"
```

```
feed_content = feed.find_elements(By.CSS_SELECTOR, locator)[0].text
```

```
print(feed_content)
```

```
▼ <div dir="auto" class="html-div xe8uv vx xdj266r x11i5rnm xat24cr x1mh8g0r xexx8yu x4uap5 x18d9i69 xkhd6sd">
▼ <div class="x1iorvi4 x1pi30zi x1l90r2v x1swvt13" id=":r84:"> == $0
▼ <span class="x193iq5w xeuugli x13faqbe x1vvkbs xlh3980 xvmahel x1n0sxbx x1lllihq x1s928wv xhkezzo x1gmr53x x1cpjm7i x1fgarty x1943h6 x x4zkip8e x3x7a5m x6prxxf xvq8zen xo1l8bm xzsf02u" dir="auto">
  ::before
  ▼ <div class="x1e56ztr">
    ▼ <span class="x193iq5w xeuugli x13faqbe x1vvkbs xlh3980 xvmahel x1n0sxbx x6prxxf xvq8zen xo1l8bm xzsf02u">
      "高CP值吃到飽自助餐，用餐空間高雅舒適，生魚片及海鮮新鮮、有蒸生蠔、牛排、干貝蟹肉煲、炸蝦、鴨肝醬等百種美食及哈根達斯冰淇淋。現正舉辦甜點季，自即日起到5/17，請到日本米其林甜點主廚製作10款巧克力甜點。"
    </span>
```

# 連結內容

## # 連結

```
element =  
feed.find_elements(By.CSS_SELECTOR,  
"div[class='xmjcpbm x1n2onr6'] > div >  
a[rel='nofollow  
noreferrer'][role='link'][tabindex='0']")[0]  
feed_link = element.get_attribute('href')  
feed_link
```



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等百種美食及哈根達斯

## # 連結文字

```
element = feed.find_elements(By.CSS_SELECTOR,  
"span[dir='auto'] > span > span[dir='auto']")[0]  
feed_link_alt = element.text  
feed_link_alt
```

# 連結內容

# 照片

```
feed_pic = feed.find_elements(By.CSS_SELECTOR,  
"div[class='x10l6tqk x13vifvy'] >  
img")[0].get_attribute('src')
```

```
feed_pic
```



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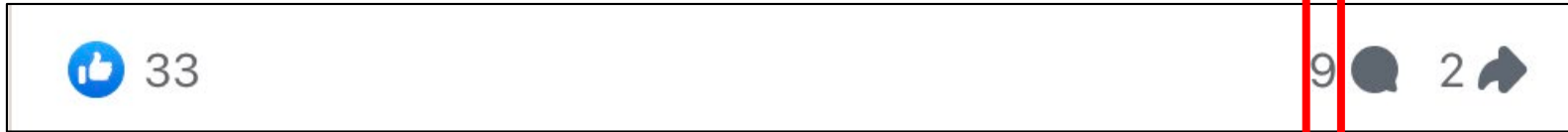
# 按讚數



```
▼ <div class="x6s0dn4 x78zum5 x1iyj
qo2 x6ikm8r x10wlt62"> flex
  ▶ <span aria-label="看看誰對這個傳達
了心情" class="x1ja2u2z" role="t
oolbar"> ... </span>
  <div class="x9f619 x1ja2u2z xzp
qnlv x1hyvwdk xjm9jq1 x6ikm8r x
10wlt62 x10l6tqk x1i1rx1s">所有
心情 : </div>
  ▼ <span aria-hidden="true" class=
"xbpyxo x6ikm8r x10wlt62 xlyip
yv x1exxlbk">
    ▼ <span>
      <span class="x1e558r4">33
      </span> == $0
    </span>
  </span>
</div>
```

```
# 按讚數
element = feed.find_elements(By.CSS_SELECTOR,
"span[class='x1e558r4']")[0]
emotion = element.text
emotion
```

# 留言數



## # 留言數

```
element = feed.find_elements(By.CSS_SELECTOR, "div > span > div[role='button'][tabindex='0'] > div > div > span[dir='auto']")[0]
```

```
comment_number = element.text
```

```
comment_number
```

```
j > flex
▼ <div class="x9f619 x1n2onr6 x1ja2u2z x
78zum5 xdt5ytf x2lah0s x193iq5w xeuugl
i xsyo7zv x16hj40l x10b6aqq x1yrsyyn">
flex
▼ <span class="x4k7w5x x1h91t0o x1h9r5l
t x1jfb8zj xv2umb2 x1beo9mf xaigb6o x
12ejxvf x3igimt xarpa2k xedcshv x1lyt
zrv x1t2pt76 x7ja8zs x1qrb5j"> flex
▼ <div class="x1i10hfl x1qjc9v5 xjqpn
uy xa49m3k xqeqjp1 x2hbi6w x1ypdohk
xdl72j9 x2lah0s xe8uvvx x2lwn1j xeu
ugli xggy1nq x1t137rt x1o1ewxj x3x9
cwd x1e5q0jg x13rtm0m x3nfv2 x1q0g
3np x87ps6o x1lku1pv x1a2a7pz xjysl
ct xjbbq8w x13fuv20 xu3j5b3 x1q0q8m
5 x26u7qi x972fbf xcfux6l x1qhh985
xm0m39n x9f619 x1heor9g xdj266r x11
i5rnm xat24cr x1mh8g0r xexx8yu x4ua
p5 x18d9i69 xkhd6sd x1n2onr6 x16tds
g8 xt0b8zv x1hl2dhg x1ja2u2z" id=":
ril:" role="button" tabindex="0">
flex
▼ <div class="x9f619 x1n2onr6 x1ja2
u2z x78zum5 x2lah0s x1qughib x6s0
dn4 xozqiw3 x1q0g3np xwrv7xz x818
2xy x4cne27 xifccgj"> flex
▼ <div class="x9f619 x1n2onr6 x1j
a2u2z x78zum5 xdt5ytf x2lah0s x
193iq5w xeuugli xg83lxy x1h0ha7
o x10b6aqq x1yrsyyn"> flex
▼ <span class="x193iq5w xeuugli
x13faqbe x1vvkbs xlh3980 xvma
hel x1n0sxbx x1lliihq x1s928w
v xhkezso x1gmr53x x1cpjm7i x
1fgarty x1943h6x x4zcp8e x3x7
a5m x6prxxf xvq8zen xol18bm x
i81zsa" dir="auto"> == $0
::before
"9"
::after
</span>
```

# 轉發數



## # 轉發數

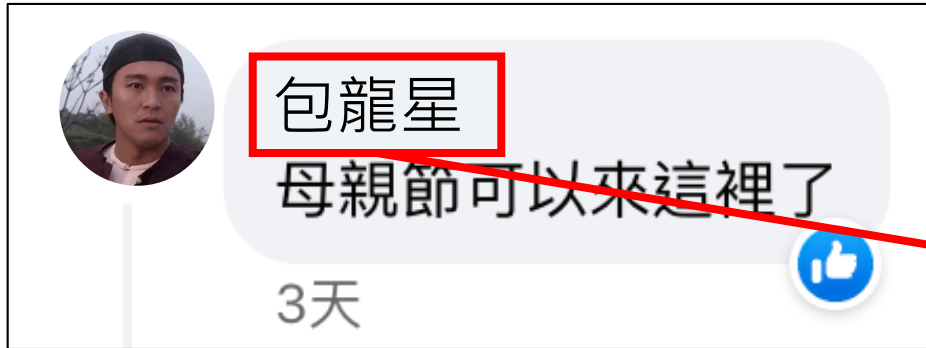
```
element = feed.find_elements(By.CSS_SELECTOR, "div > span > div[role='button'][tabindex='0'] > div > div > span[dir='auto']")[1]
```

```
comment_number = element.text
```

```
comment_number
```

```
▼<div class="x9f619 x1n2onr6 x1ja2u2z x78zum5 xdt5ytf x2lah0s x193iq5w xeugli xsyozzv x16hj40l x10b6aqq x1yrsyyn">flex
▼<span class="x4k7w5x x1h91t0o x1h9r5lt x1jfb8zj xv2umb2 x1beo9mf xaigb6o x12ejxvf x3igimt xarpa2k xedcshv x1lytzrv x1t2pt76 x7ja8zs x1qrbv5j">flex
▼<div class="x1i10hfl x1qjc9v5 xjqpn uy xa49m3k xqeqjp1 x2hbi6w x1ypdohk xdl72j9 x2lah0s xe8uvvx x2lwn1j xeuugli xggy1nq x1t137rt x1o1ewxj x3x9cwd x1e5q0jg x13rtm0m x3nfv2p2 x1q0g3np x87ps6o x1lku1pv x1a2a7pz xjyslct xjbbq8w x13fuv20 xu3j5b3 x1q0q8m5 x26u7qi x972fbf xcfux6l x1qhh985 xm0m39n x9f619 x1heor9g xdj266r x11i5rnm xat24cr x1mh8g0r xexx8yu x4uap5 x18d9i69 xkhd6sd x1n2onr6 x16tdsg8 xt0b8zv x1hl2dhg x1ja2u2z" role="button" tabindex="0">flex
▼<div class="x9f619 x1n2onr6 x1ja2u2z x78zum5 x2lah0s x1qughib x6s0dn4 xozqi3 x1q0g3np xwrv7xz x8182xy x4cne27 xifccgj">flex
▼<div class="x9f619 x1n2onr6 x1ja2u2z x78zum5 xdt5ytf x2lah0s x193iq5w xeugli xg83lxy x1h0ha7o x10b6aqq x1yrsyyn">flex
▼<span class="x193iq5w xeugli x13faqbe x1vvkbs xlh3980 xvmahel x1n0sxbx x1lliihq x1s928wv xhkezso x1gmr53x x1cpjm7i x1fgarty x1943h6x x4zkp8e x3x7a5m x6prxxf xvq8zen xo1l8bm xi81zsa" dir="auto"> == $0
::before
"2"
::after
</span>
```

# 留言人



## # 留言人

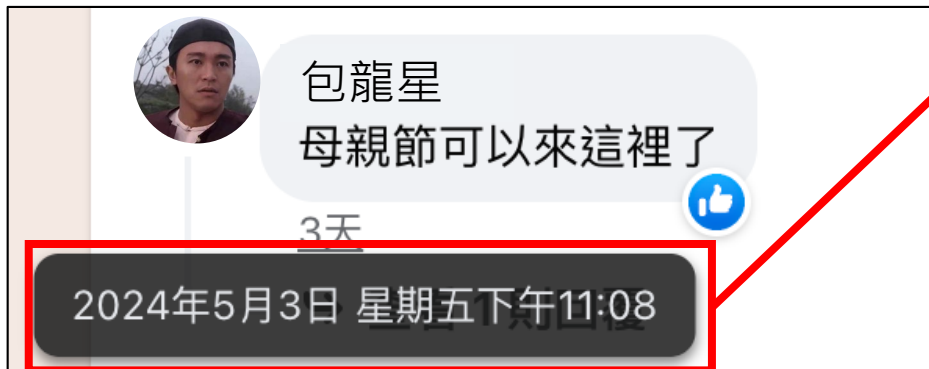
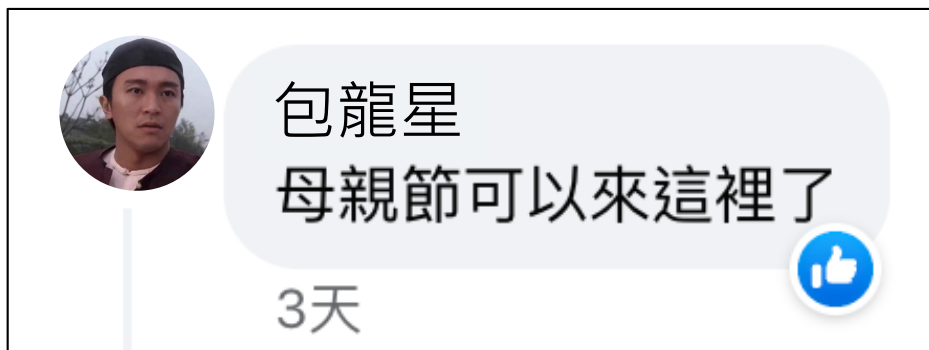
```
element = feed.find_elements(By.CSS_SELECTOR,  
"span[class='x3nfvp2']")[0]
```

```
comment_man = element.text
```

```
comment_man
```

```
▼ <span class="xt0psk2">  
  ▼ <div aria-hidden="false" class="x  
    1i10hfl xjbqb8w x1ejq31n xd10rxx  
    x1sy0etr x17r0tee x972fbf xcfux6l  
    x1qhh985 xm0m39n x9f619 x1ypdohk  
    xt0psk2 xe8uvvx xdj266r x11i5rnm  
    xat24cr x1mh8g0r xexx8yu x4uap5 x  
    18d9i69 xkhd6sd x16tdsg8 xggy1nq  
    x1a2a7pz x1heor9g xt0b8zv x1hl2dh  
    g" role="button" tabindex="0">  
    ▼ <span class="x3nfvp2"> flex  
      ▼ <span class="x193iq5w xeuugli  
        x13faqbe x1vvkbs xlh3980 xvma  
        hel x1n0sxbx x1lliihq x1s928w  
        v xhkezso x1gmr53x x1cpjm7i x  
        1fgarty x1943h6x x4zkp8e x676  
        frb x1nxh6w3 x1sibtaa x1s688f  
        xzsf02u" dir="auto"> == $0  
        ::before  
        "吳莉莉"  
        ::after  
      </span>
```

# 留言時間

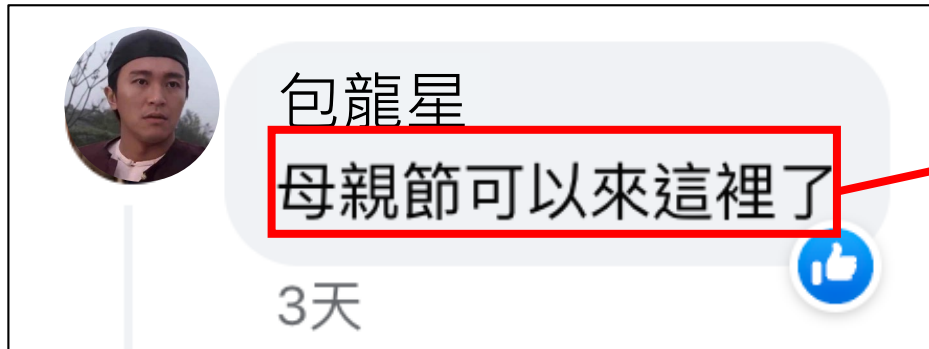


```
<div class="x6s0dn4 x3nfv2"> flex
  <ul aria-hidden="false" class="x1n0m28w x78zum
  5 x1wfe3co xat24cr xsgj6o6 x1o1nzlu xyqdw3p">
    flex
    <li class="x1rg5ohu x1emribx x1i64zmx">
      <span class="x4k7w5x x1h91t0o x1h9r5lt x1j
      fb8zj xv2umb2 x1beo9mf xaigb6o x12ejxvf x3
      igimt xarpa2k xedcshv x1lytzrv x1t2pt76 x7
      ja8zs x1qrb5j">
        <div>
          <a class="x1i10hfl xjbqb8w x1ejq31n xd
          10rxx x1sy0etr x17r0tee x972fbf xcfux6
          l x1qhh985 xm0m39n x9f619 x1ypdohk xt0
          psk2 xe8uvvx xdj266r x11i5rnm xat24cr
          x1mh8g0r xexx8yu x4uap5 x18d9i69 xkhd6
          sd x16tdsg8 xggy1nq x1a2a7pz xt0b8zv x
          1hl2dhg xi81zsa xo1l8bm" href="https://
          /www.facebook.com/groups/foodspick/pos
          ts/2112247919140154/?c...mpRPEXHbZQ7PuVC
          KVI bye8uaFMfkcIVpYvYfiPsjxZKbcW6rMIs0
          90e0pwWx& tn =R]-R" role="link"
          tabindex="0">
            <span class="html-span xdj266r x11i5r
            nm xat24cr x1mh8g0r xexx8yu x4uap5 x1
            8d9i69 xkhd6sd x1hl2dhg x16tdsg8 x1vv
            kbs">3天</span> == $0
```

# Python Code

```
# 留言時間
element = feed.find_elements(By.CSS_SELECTOR, "div[class='x6s0dn4
x3nfv2']")[0]
mouse_move_to(driver, element)
time.sleep(1) # 等待網頁反應
comment_time = driver.find_elements(By.CSS_SELECTOR,
"div[role='tooltip']")[0].text
print(comment_time)
```

# 留言內容



```
▼ <div class="x1lliihq xjkvuk6 x1iorvi4"> == $0
  ▼ <span class="x193iq5w xeuugli x13fa qbe x1vvkbs xlh3980 xvmahel x1n0sxb x x1lliihq x1s928wv xhkezso x1gmr53 x x1cpjm7i x1fgarty x1943h6x x4zkp8 e x3x7a5m x6prxxf xvq8zen xo1l8bm x zsf02u" dir="auto" lang="zh-TW">
    ::before
    ▼ <div class="xdj266r x11i5rnm xat2 4cr x1mh8g0r x1vvkbs">
      <div dir="auto" style="text-align: start;">母親節可以來這裡了
    </div>
```

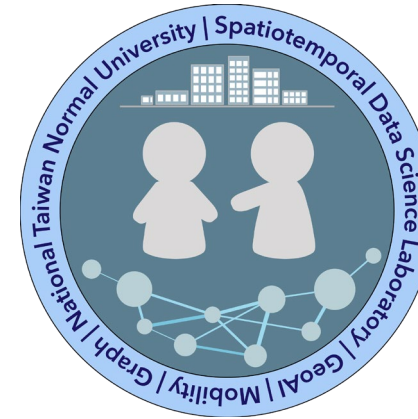
## # 留言內容

```
element =
feed.find_elements(By.CSS_SELECTOR,
"div[class='x1lliihq xjkvuk6 x1iorvi4']")[0]
comment_content = element.text
comment_content
```

# 資訊整理與輸出

```
# 資訊整理並輸出CSV
df_feeds = pd.DataFrame({"Feed Number":[1],
"Feed Man":[feed_man],
"Feed Time":[feed_time],
"Feed Content":[feed_content],
"Feed Content Picture":[feed_pic],
"Feed Link String":[feed_link_alt],
"Feed Link":[feed_link],
"Comment Man":[comment_man],
"Comment Time":[comment_time],
"Comment Content":[comment_content]})
df_feeds.to_csv("../feeds.csv", encoding="utf-8-sig", index=False)
```





# The End

Thank you for your attention!

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