

Lab138 : Replace Empty Cells

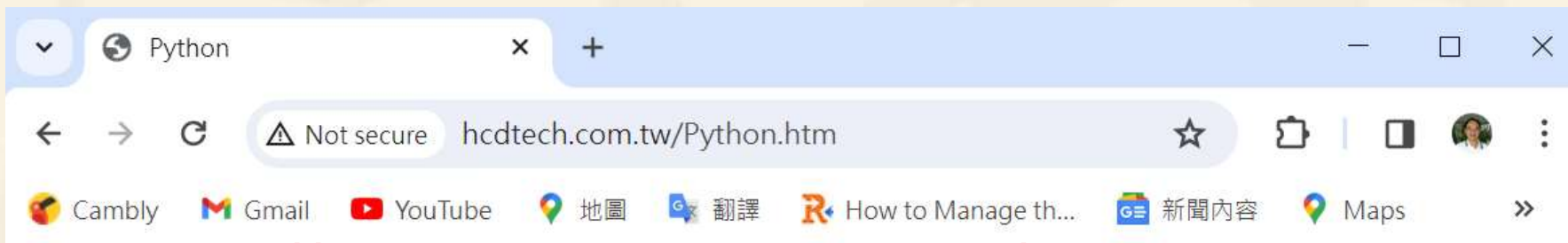
更換空欄位

(別怕! 跟著做你就會!)

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請至 www.hcdtech.com.tw 下載教材



<http://www.hcdtech.com.tw/Python.htm>



[\[首頁\]](#) [\[免費研習活動報名須知\]](#) [\[免費自助式教材分享\]](#) [\[Python\]](#) [\[產品簡介\]](#) [\[智慧型遙控器\]](#) [\[汽車震動防盜器\]](#) [\[門窗開啟警報器\]](#) [\[電子密碼鎖\]](#) [\[數位控制電風扇\]](#) [\[房屋電燈中央監控\]](#) [\[洗衣機數控面板\]](#) [\[雙光束雷射防盜器\]](#) [\[火警報知機\]](#)

所有的考卷都可以考100分，是我們自己錯過了！

學習秘訣=發問+練習

考卷發下去，時間到了收回來，如果沒有考到100分，這很正常。重點來了，不會的可以問，問完了練習，準備好了考卷再發下去。第二次還是沒有考到100分，這也很正常。沒關係，再來一次，不會的可以問，問完了練習，準備好了考卷第三次再發下去，.....，考到第N次如果還是沒有考到100分。沒關係，再來，不會的可以問，問完了練習，N+1次、N+2次、.....，你們都很聰明，知道我在說什麼，到最後考卷一定可以考100分！看懂了妳/你就會知道，原來學習的秘訣就是發問和練習！今天開始不懂就問，問完了練習，明年的妳/你肯定不一樣！

學習如何學習！

1

1 2

1 2 3

.....

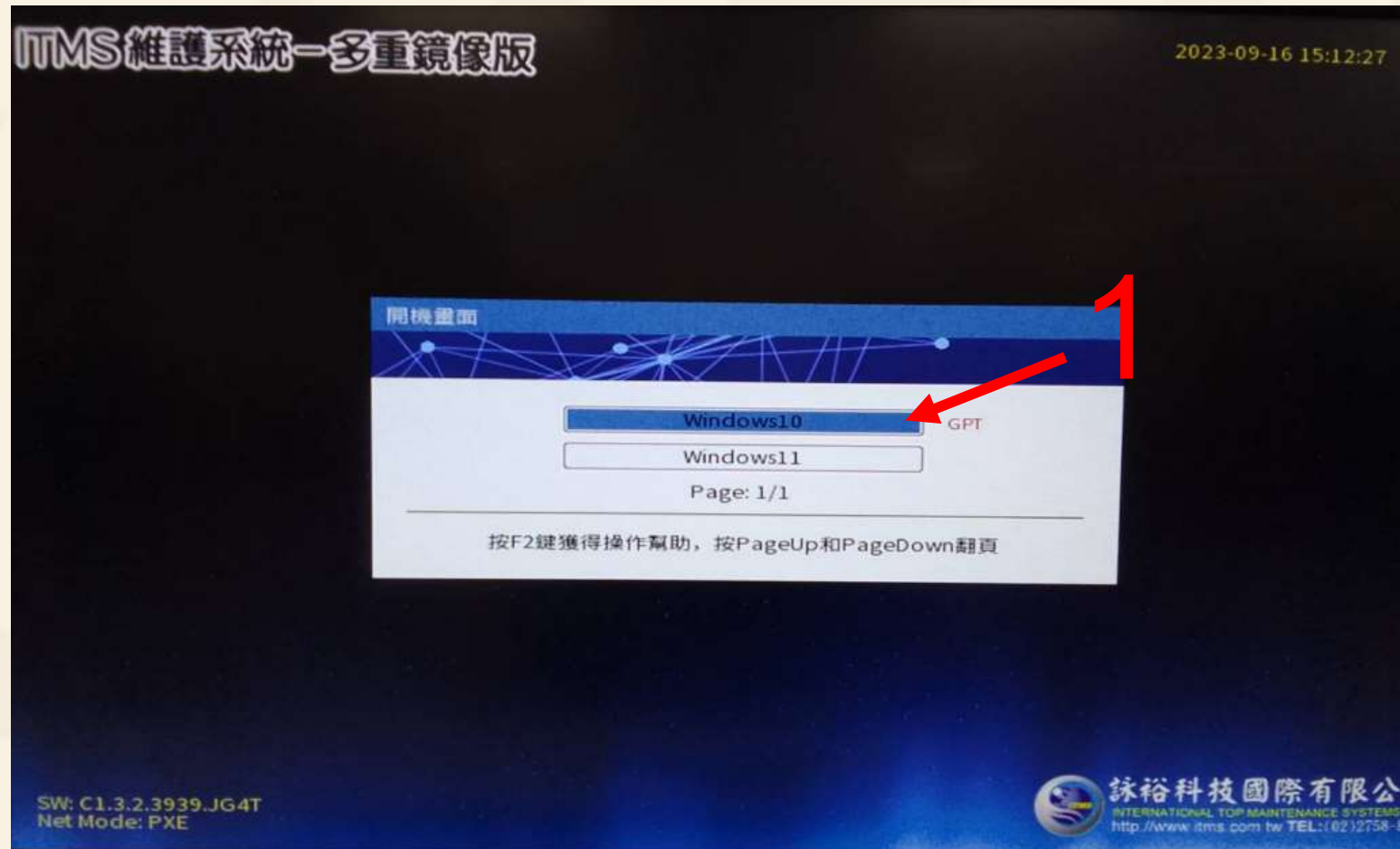
1 2 3 4 5 6 7 8 9 10

金字塔念書法



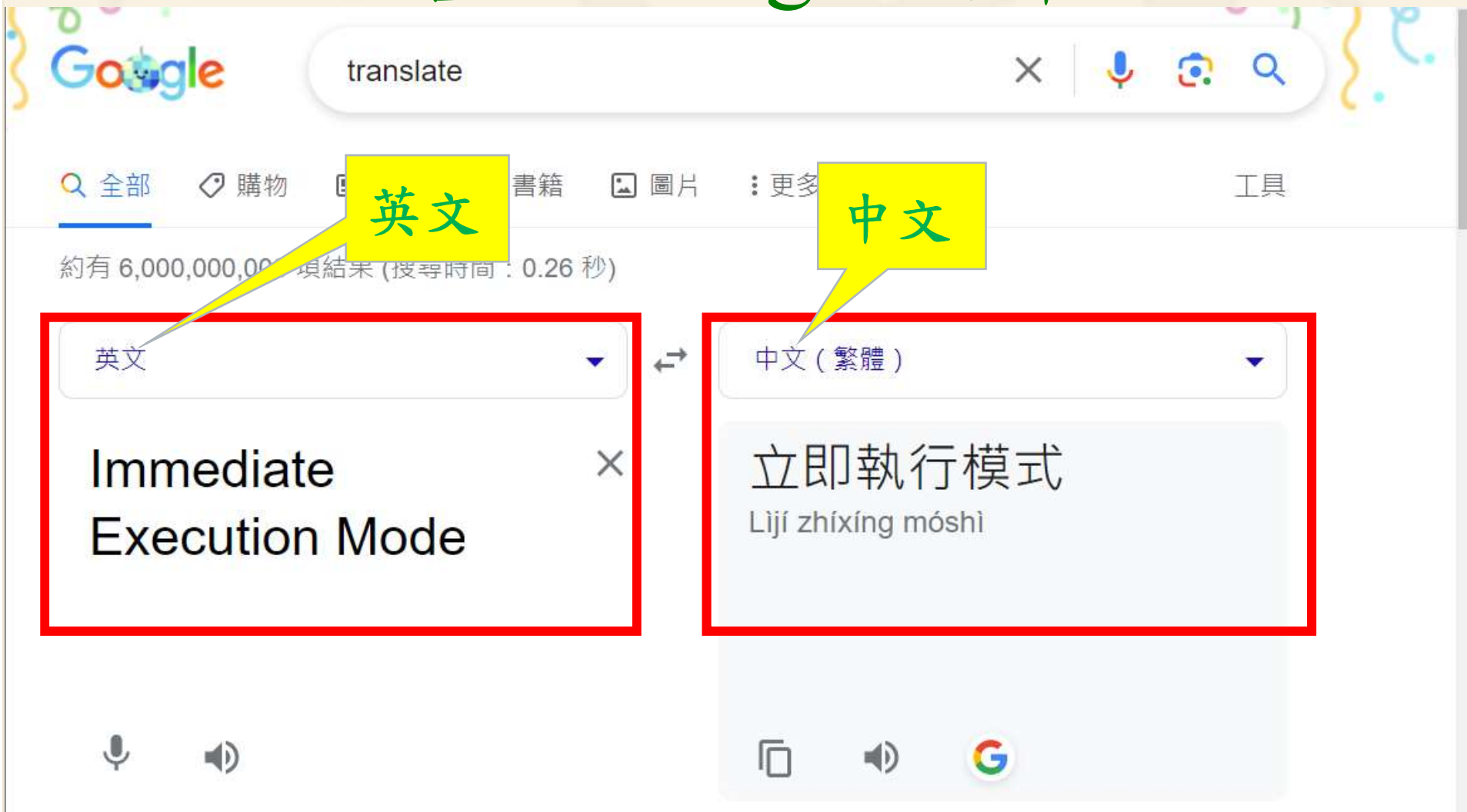
如果一本書有10個章節！先看第1章，在看第2章之前再把第1章看一遍，在看第3章之前再把第1, 2章看一遍，.....，等看到第10章的時候，第1, 2, 3, 4章恐怕已經背起來了！我稱這種念書法為金字塔念書法，今天開始照著做，明年的妳/你肯定不一樣！

請使用 Windows 10



1. 選用 Windows 10.

善用 Google 翻譯



請先開啟網頁閱讀

Pandas - Cleaning Empty Cells: x +

w3schools.com/python/pandas/pandas_cleaning_empty_cells.asp

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Pandas Tutorial

- Pandas HOME
- Pandas Intro
- Pandas Getting Started
- Pandas Series
- Pandas DataFrames
- Pandas Read CSV
- Pandas Read JSON
- Pandas Analyzing Data

Cleaning Data

- Cleaning Data
- Cleaning Empty Cells**
- Cleaning Wrong Format
- Cleaning Wrong Data
- Removing Duplicates

Correlations

Pandas - Cleaning Empty Cells

< Previous Next >

Empty Cells

Empty cells can potentially give you a wrong result when you analyze data.

Remove Rows

One way to deal with empty cells is to remove rows that contain empty cells.

This is usually OK, since data sets can be very big, and removing a few rows will not have a big impact on the result.

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在 這裡輸入文字來搜尋

12°C 上午 11:26 2023/12/21

本練習請先下載CSV檔



1. 請至iLMS網頁

2. 下載Lab136data.csv後
將檔案複製到Win10(C)>
使用者>User資料夾

課程: 程式設計(一) (ETP002A)

瀏覽模式 [切換]
您現在的瀏覽模式為 [老師]

- 課程功能 [管理]
- 課程活動(公告)
- 上課教材 (7)
- 課堂整理
- 課程說明
- 課程行事曆
- 討論區
- 小組專區
- 隨堂筆記 (共享的筆記)
- 作業
- 問卷
- 線上測驗
- 出缺勤 (統計)
- 成員 (15)

位置: 程式設計(一) > 上課教材 > 教材

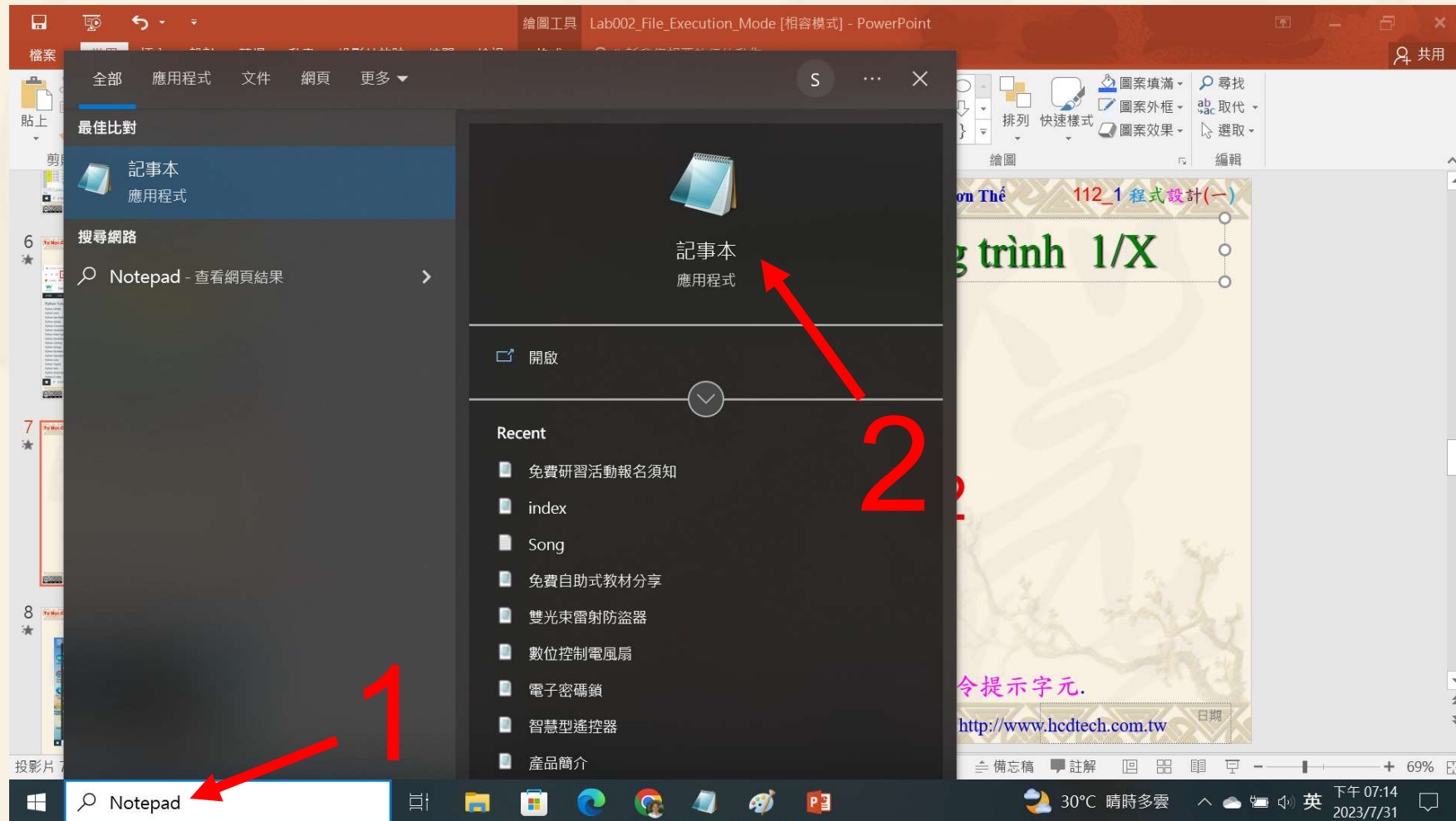
Lab126~Lab150
by 盧樹台, 2023-11-30 20:51, 人氣(9)

- 附件 [隱藏]
- 1. Lab126_NumPy GCD.pdf (1.4 MB)
- 2. Lab127_Trigonometric Functions.pdf (1.4 MB)
- 3. Lab128_Trigonometric Functions.pdf (1.4 MB)
- 4. Lab129_Hyperbolic Functions.pdf (1.4 MB)
- 5. Lab130_Set Operations.pdf (1.7 MB)
- 6. Lab131_Pandas Getting Started.pdf (1.4 MB)
- 7. Lab132_Pandas DataFrames.pdf (1.4 MB)
- 8. Lab133_Pandas Read CSV.pdf (1.4 MB)
- 9. Lab134_Pandas Read JSON.pdf (1.4 MB)
- 10. Lab135_Analyzing DataFrames.pdf (1.6 MB)
- 11. Lab136data.csv (1 KB)
- 12. Lab136_Cleaning Empty Cells.pdf (1.6 MB)

發表討論



建立程式文件 1/4



1. 鍵盤輸入Notepad. 2. 用滑鼠點選記事本.

建立程式文件 2/4

```

*未命名 - 記事本
檔案(F) 編輯(E) 格式(O) 檢視(V) 說明
print("P11211XXX practices Lab138.")

import pandas as pd
print("Load Lab136data.csv into a DataFrame:")
MyDataFrame = pd.read_csv('Lab136data.csv')
MyDataFrame1 = pd.read_csv('Lab136data.csv')
MyDataFrame2 = pd.read_csv('Lab136data.csv')
MyDataFrame3 = pd.read_csv('Lab136data.csv')
print(MyDataFrame.to_string())
print('The data set contains some empty cells ("Date" in row 22, and "Calories" in row 18 and 28).')
x = input("Please check the empty cells in row 22, 18, and 28 and press the 'Enter' key on your keyboard.")
print()
print("Calculate the MEAN, and replace any empty values with it:")
y = MyDataFrame1["Calories"].mean()
MyDataFrame1["Calories"].fillna(y, inplace = True)
print(MyDataFrame1.to_string())
x = input("Please check all NaN values in the 'Calories' columns are changed to mean value and press the 'Enter' key on your keyboard.")
print()
print("Calculate the MEDIAN, and replace any empty values with it:")
y = MyDataFrame2["Calories"].median()
MyDataFrame2["Calories"].fillna(y, inplace = True)
print(MyDataFrame2.to_string())
x = input("Please check all NaN values in the 'Calories' columns are changed to median value and press the 'Enter' key on your keyboard.")
print()
print("P11211XXX practices Lab138.")
print("Calculate the MODE, and replace any empty values with it:")
y = MyDataFrame3["Calories"].mode()[0]
MyDataFrame3["Calories"].fillna(y, inplace = True)
print(MyDataFrame3.to_string())
x = input("Please check all NaN values in the 'Calories' columns are changed to mode value and press the 'Enter' key on your keyboard.")
    
```

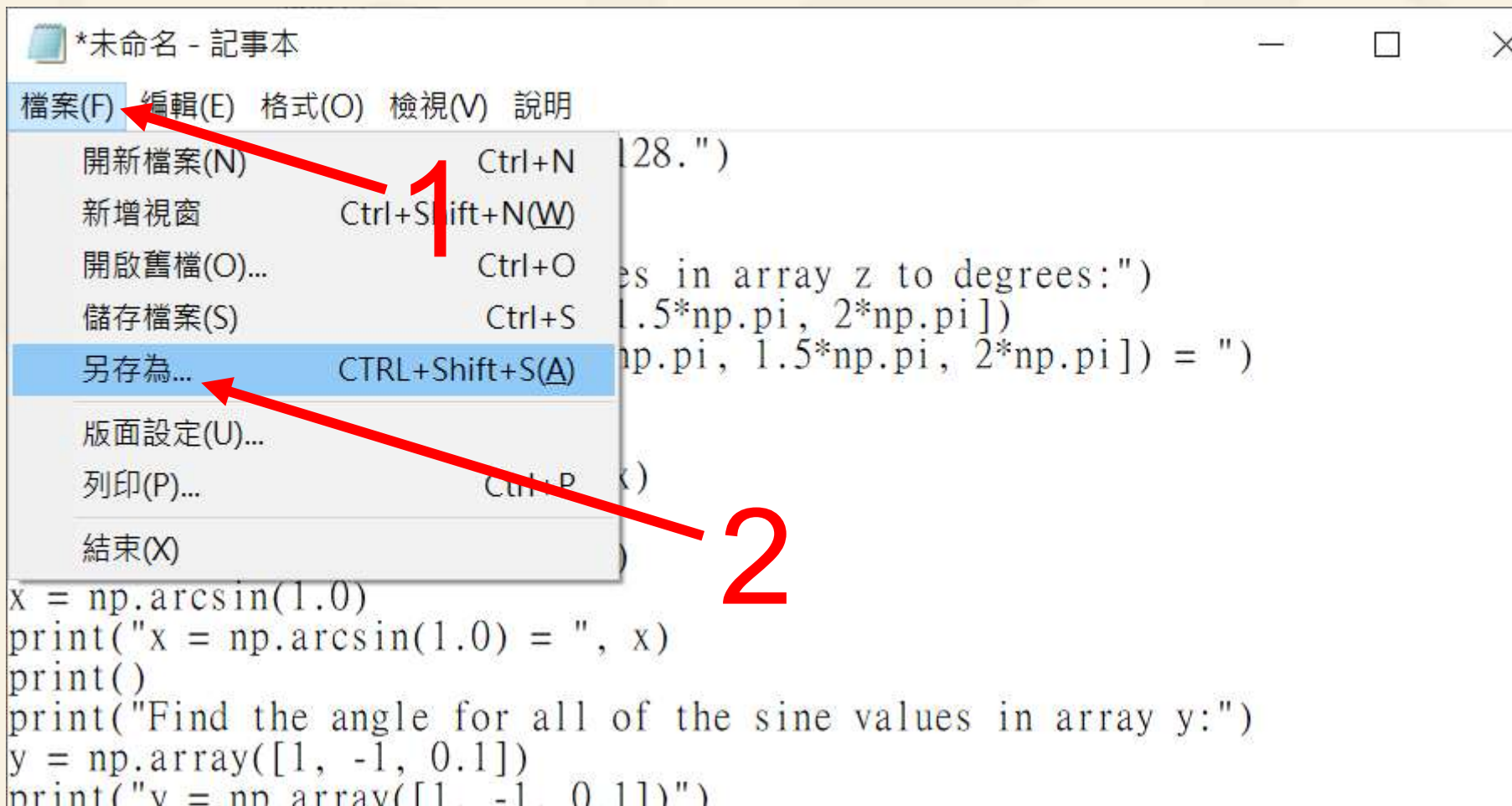
將P11211XXX修改為您的學號



將P11211XXX修改為您的學號

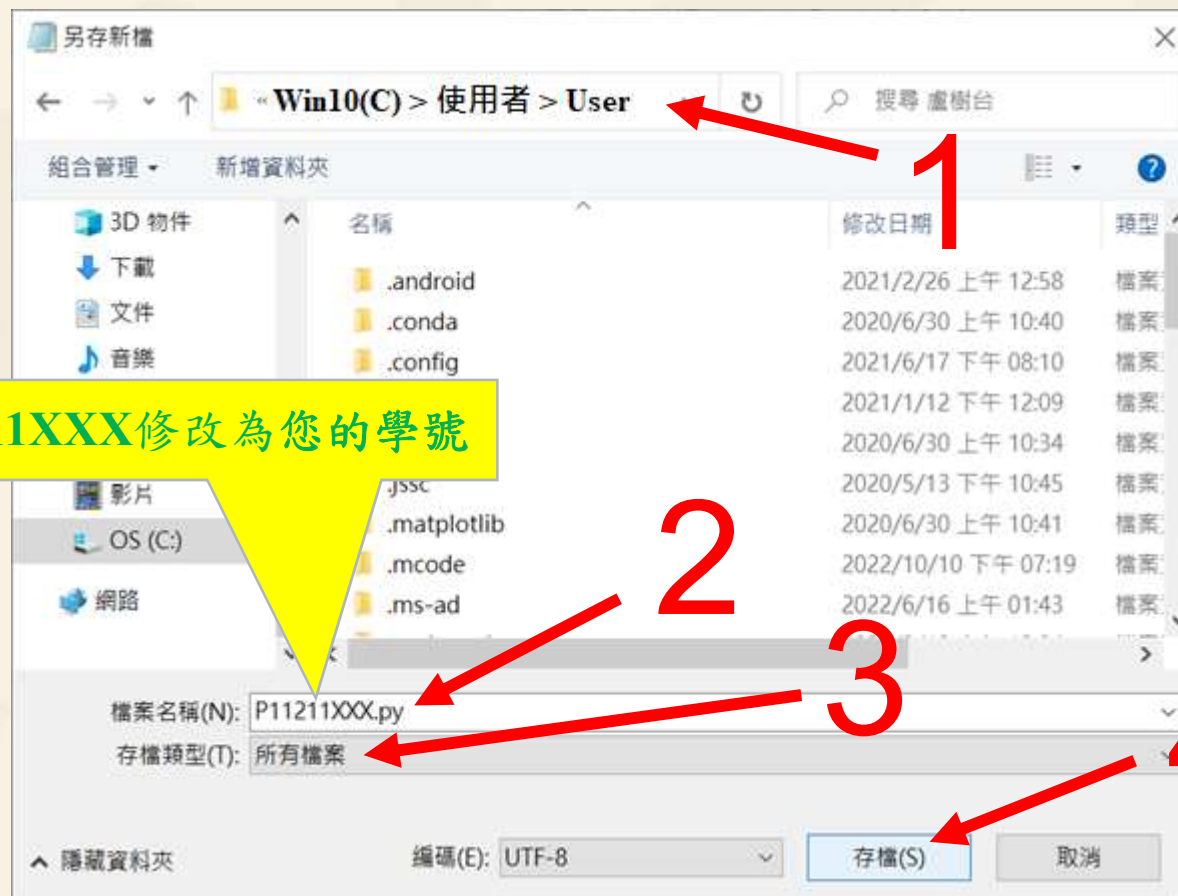
1. 用鍵盤輸入程式代碼.

建立程式文件 3/4



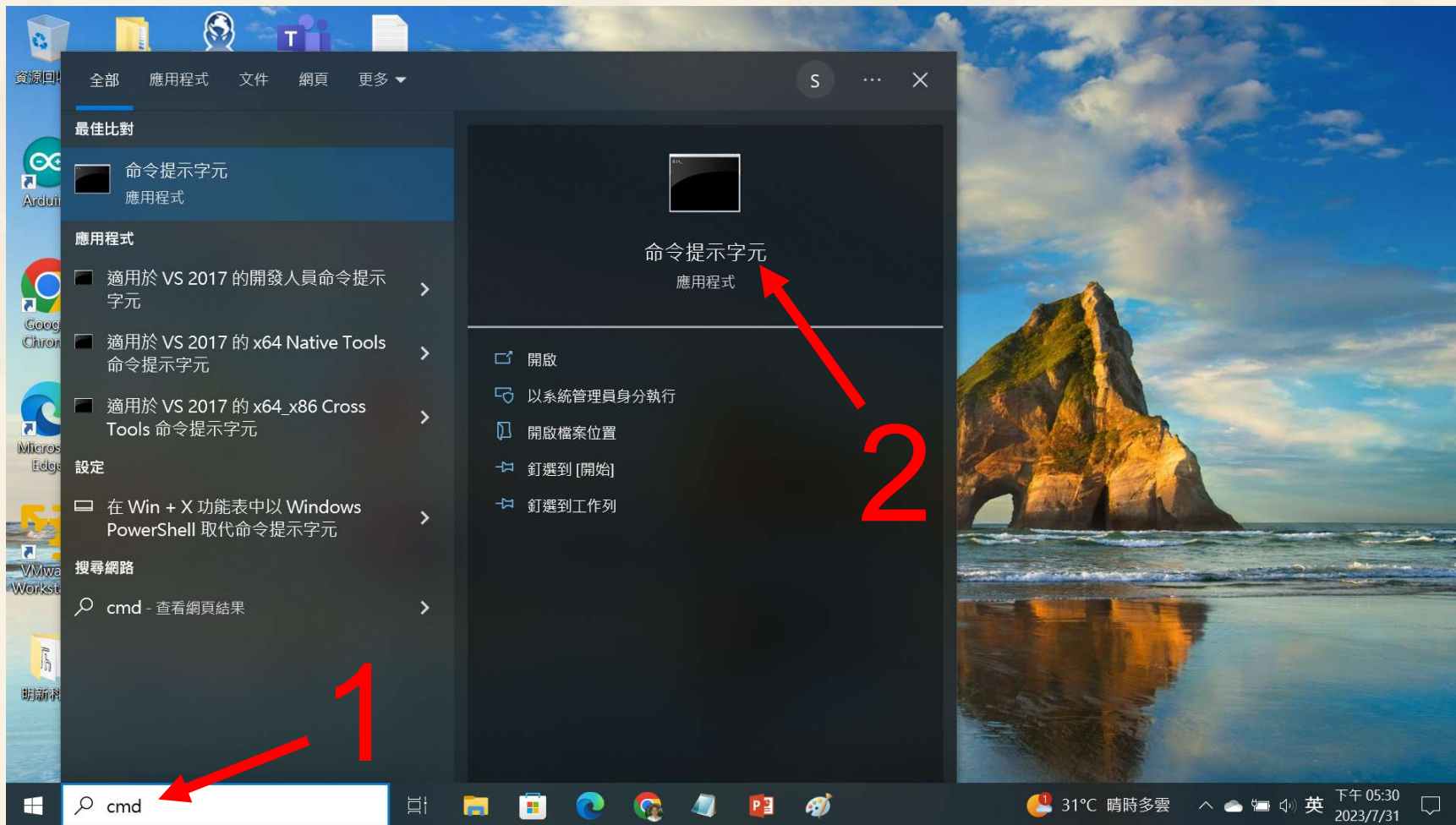
1. 用滑鼠點選檔案. 2. 用滑鼠點選另存為....

建立程式文件 4/4



1. 資料夾 = C:\使用者>User>.
2. 檔案名稱 = P11211XXX.py .
3. 存檔類型(T) = 所有檔案.
4. 用滑鼠點選存檔.

檔案執行模式 1/3



1. 鍵盤輸入cmd.
2. 用滑鼠點選命令提示字元.

檔案執行模式 2/3

```
C:\> 命令提示字元  
Microsoft Windows [版本 10.0.19045.3803]  
(c) Microsoft Corporation. 著作權所有，並保留一切權利。  
C:\Users\盧樹台>pip install pandas
```



1. 用鍵盤輸入pip install pandas.
2. 按一下Enter.

檔案執行模式 3/3

```
C:\> 命令提示字元

Microsoft Windows [版本 10.0.19045.3803]
(c) Microsoft Corporation. 著作權所有，並保留一切權利。

C:\Users\盧樹台>pip install pandas
Requirement already satisfied: pandas in c:\python39\lib\site-packages (2.1.3)
Requirement already satisfied: six>=1.5 in c:\python39\lib\site-packages (from
WARNING: Ignoring invalid distribution -ip (c:\python39\lib\site-packages)
WARNING: Ignoring invalid distribution - (c:\python39\lib\site-packages)

C:\Users\盧樹台>Python P11211XXX.py
```

將P11211XXX修改為您的學號



1. 用鍵盤輸入Python P11211XXX.py .
2. 按一下Enter.

Verification Criteria of Lab138

(Lab138的驗收規範)更換空欄位

**P11211XXX 必需
更換為您的學號**

Ask the teacher to give you points after completing the illustrated results.

(完成右圖指定成果後請教師在您的座位驗收並讓您簽名加分)

Please check all NaN values in the 'Calories' columns are changed to median value and press the 'Enter' key on your keyboard.

```
P11211XXX practices Lab138.
Calculate the MODE, and replace any empty values with it:
Duration Date Pulse Maxpulse Calories
0 60 2020/12/01' 110 130 409.1
1 60 2020/12/02' 117 145 479.0
2 60 2020/12/03' 103 135 340.0
3 45 2020/12/04' 109 175 282.4
4 45 2020/12/05' 117 148 406.0
5 60 2020/12/06' 102 127 300.0
6 60 2020/12/07' 110 136 374.0
7 450 2020/12/08' 104 134 253.3
8 30 2020/12/09' 109 133 195.1
9 60 2020/12/10' 98 124 269.0
10 60 2020/12/11' 103 147 329.3
11 60 2020/12/12' 100 120 250.7
12 60 2020/12/12' 100 120 250.7
13 60 2020/12/13' 106 128 345.3
14 60 2020/12/14' 104 132 379.3
15 60 2020/12/15' 98 123 275.0
16 60 2020/12/16' 98 120 215.2
17 60 2020/12/17' 100 120 300.0
18 45 2020/12/18' 90 112 300.0
19 60 2020/12/19' 103 123 323.0
20 45 2020/12/20' 97 125 243.0
21 60 2020/12/21' 108 131 364.2
22 45 NaN 100 119 282.0
23 60 2020/12/23' 130 101 300.0
24 45 2020/12/24' 105 132 246.0
25 60 2020/12/25' 102 126 334.5
26 60 2020/12/26' 100 120 250.0
27 60 2020/12/27' 92 118 241.0
28 60 2020/12/28' 103 132 300.0
29 60 2020/12/29' 100 132 280.0
30 60 2020/12/30' 102 129 380.3
31 60 2020/12/31' 92 115 243.0
Please check all NaN values in the 'Calories' columns are changed to mode value and press the 'Enter' key on your keyboard.
C:\Users\盧樹台>
```

P11211XXX - 記事本

檔案(F) 編輯(E) 格式(O) 檢視(V) 說明

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print("P11211XXX practices Lab138.")

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MyDataFrame3 = pd.read_csv('Lab136data.csv')
print(MyDataFrame.to_string())
print("The data set contains some empty cells ('Date' in row 22, and
x = input("Please check the empty cells in row 22, 18, and 28 and p
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print("Calculate the MEAN, and replace any empty values with it:")
y = MyDataFrame1["Calories"].mean()
MyDataFrame1["Calories"].fillna(y, inplace = True)
print(MyDataFrame1.to_string())
x = input("Please check all NaN values in the 'Calories' columns are
print()
print("Calculate the MEDIAN, and replace any empty values with it:")
y = MyDataFrame2["Calories"].median()
MyDataFrame2["Calories"].fillna(y, inplace = True)
print(MyDataFrame2.to_string())
x = input("Please check all NaN values in the 'Calories' columns are
print()
print("P11211XXX practices Lab138.")
print("Calculate the MODE, and replace any empty values with it:")
y = MyDataFrame3["Calories"].mode()[0]
MyDataFrame3["Calories"].fillna(y, inplace = True)
print(MyDataFrame3.to_string())
x = input("Please check all NaN values in the 'Calories' columns are
```

每一個學生都要做Lab138至少一次!

養成良好的工作態度

- 離開實驗室時請整理自己的工作座位，為自己的工作態度加分：
 - (1)滑鼠鍵盤歸位 (2)電腦關機 (3)螢幕關閉電源 (4)椅背靠妥 (5)個人責任區(工作座位及週邊範圍)應整潔，不遺留垃圾紙屑等。

