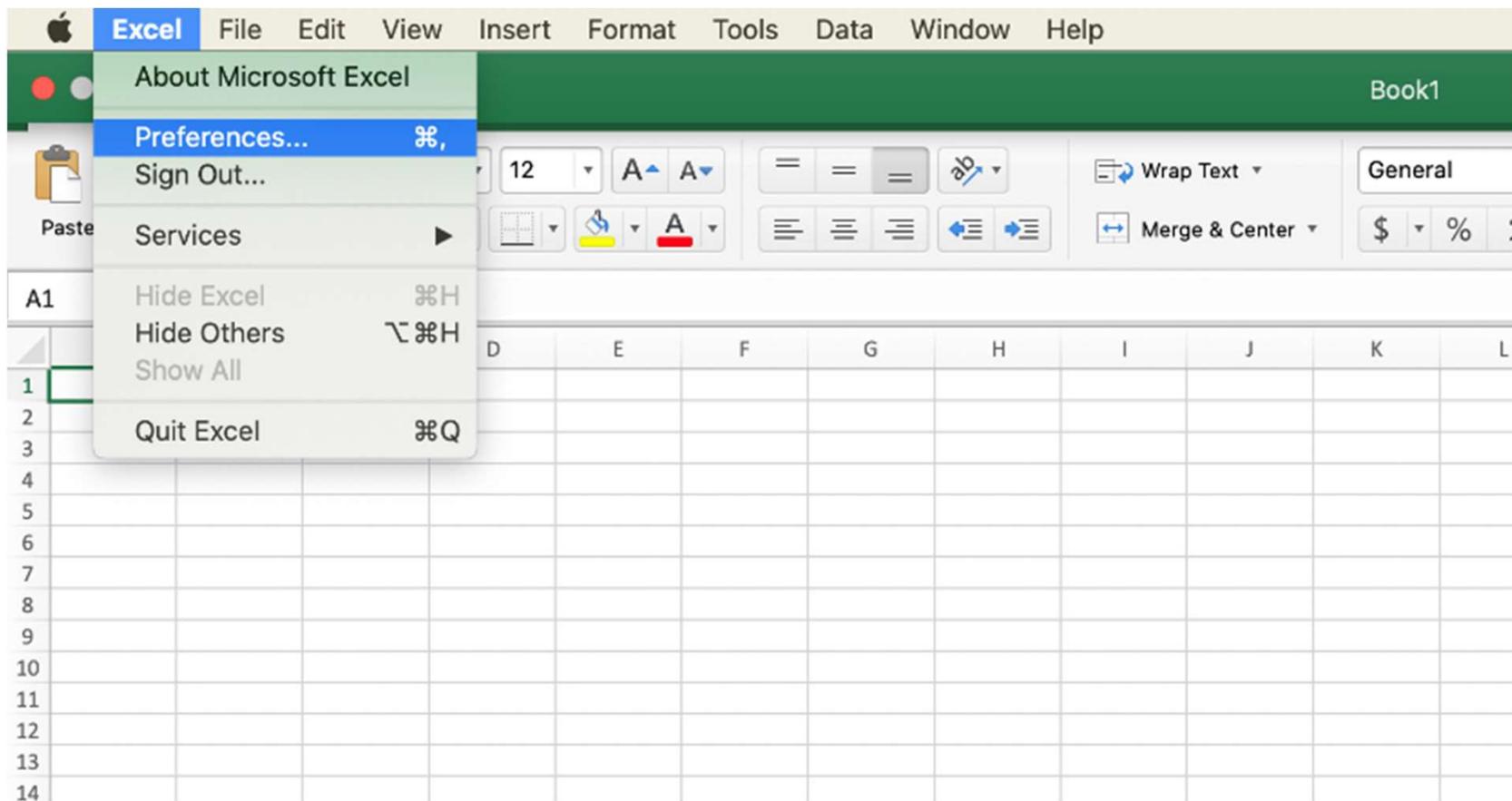
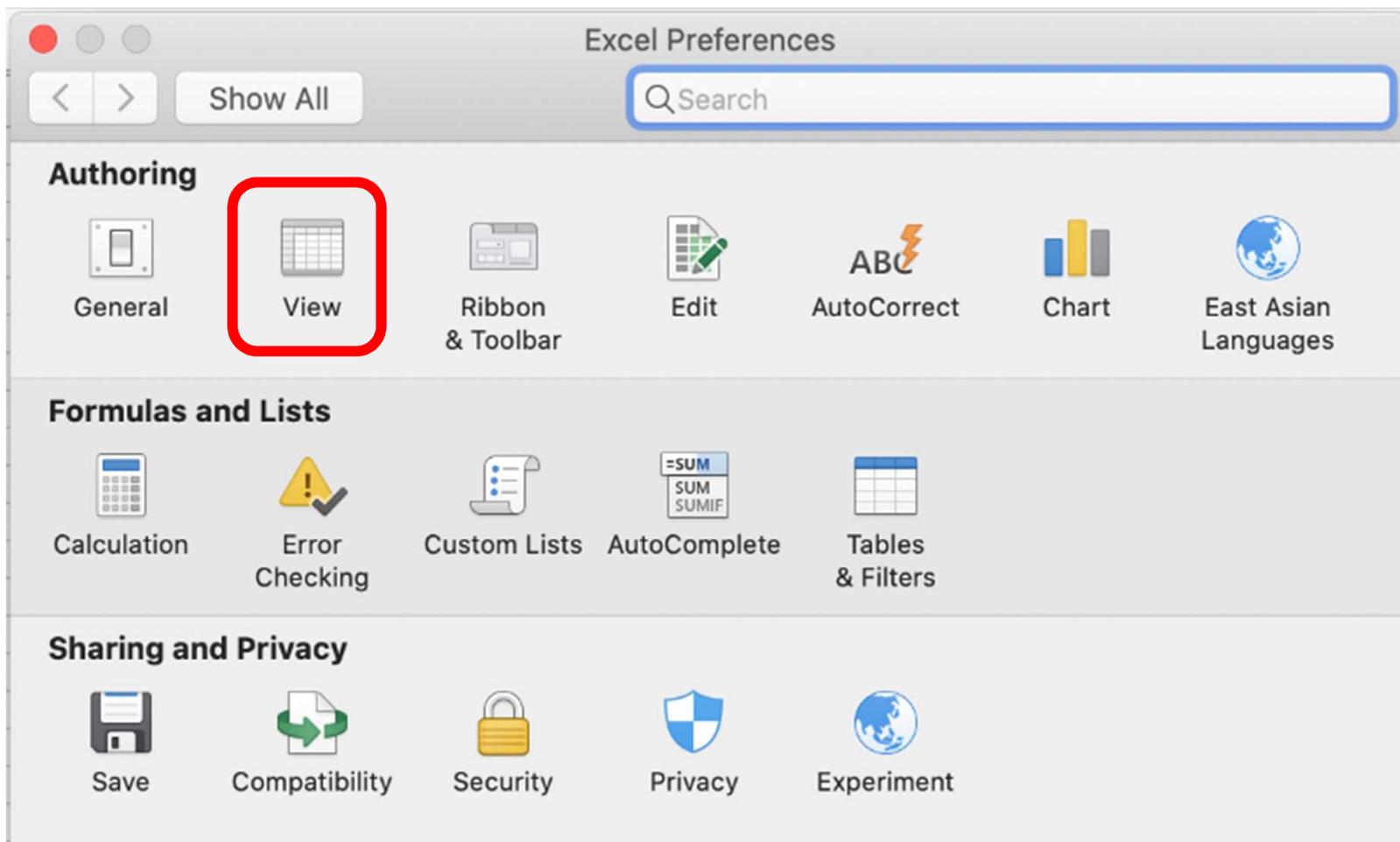
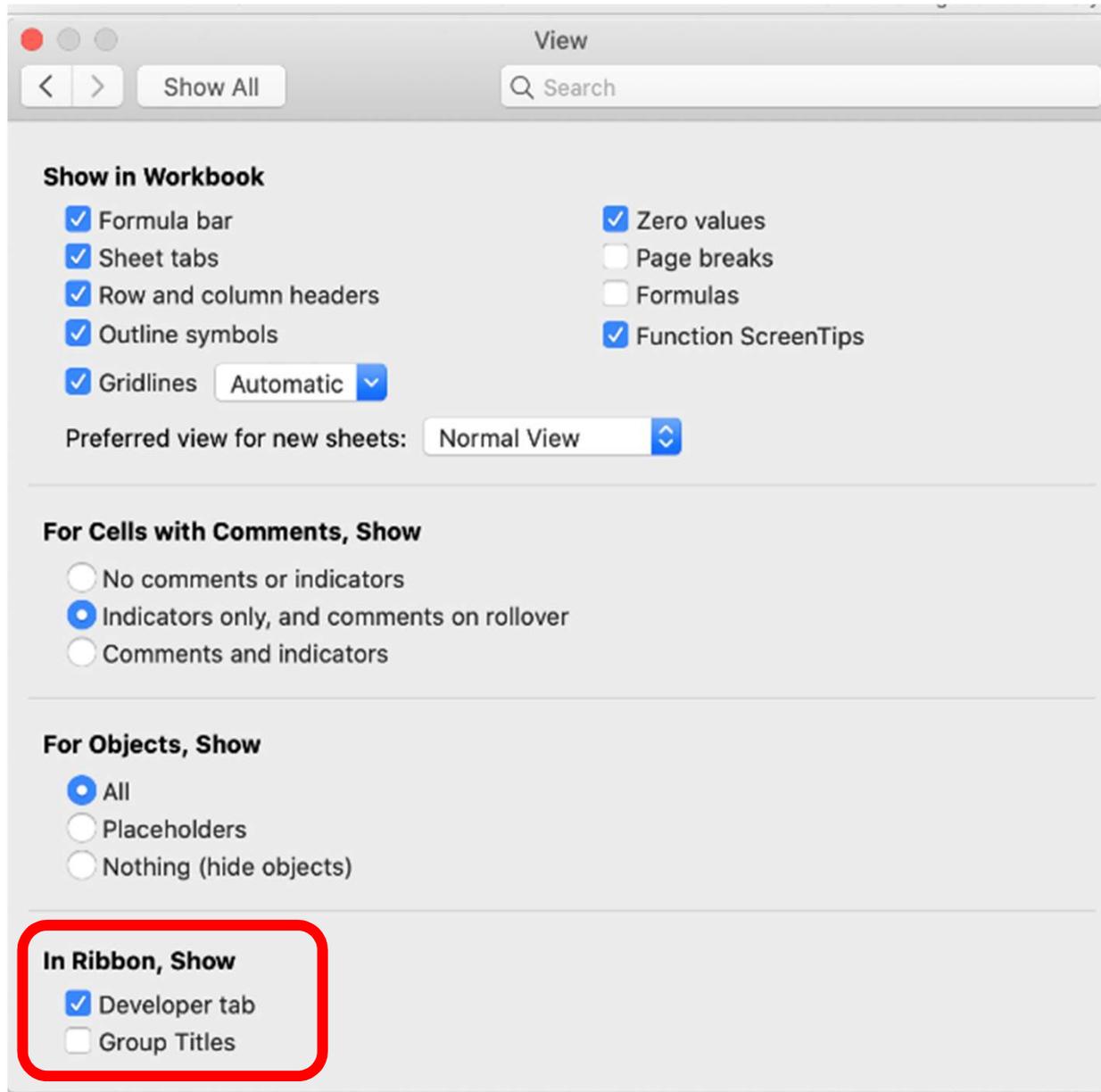


2019 Excel VBA For Mac (Note 2)

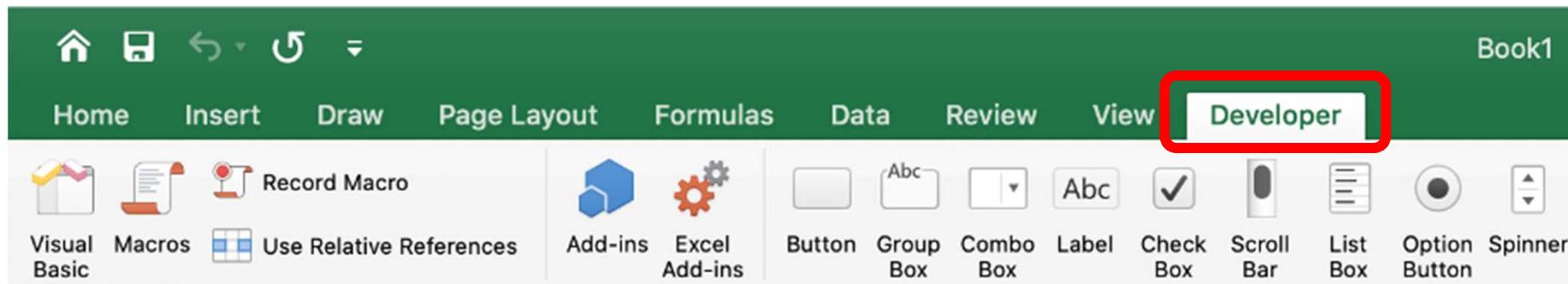
叫出 Developer



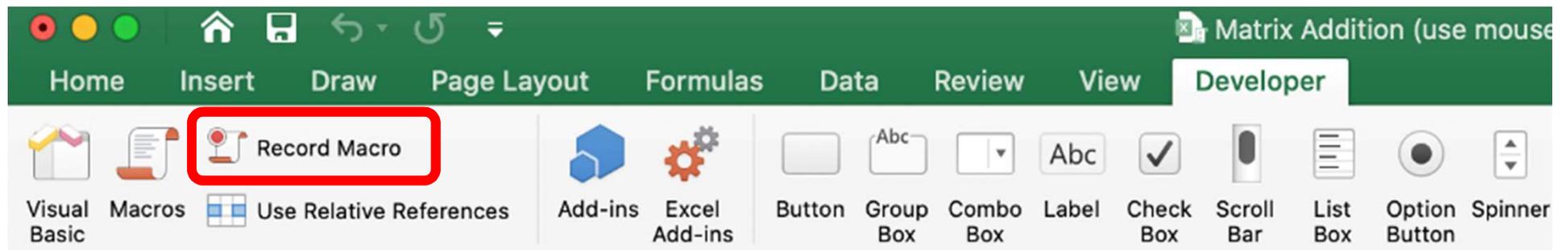




結果畫面



錄製巨集



Record Macro

Macro name:
Macro1

Personal Macro Workbook
New Workbook
✓ This Workbook

Shortcut key:
Option+Cmd+

Description:

Cancel OK

Record Macro

Macro name:
Macro1

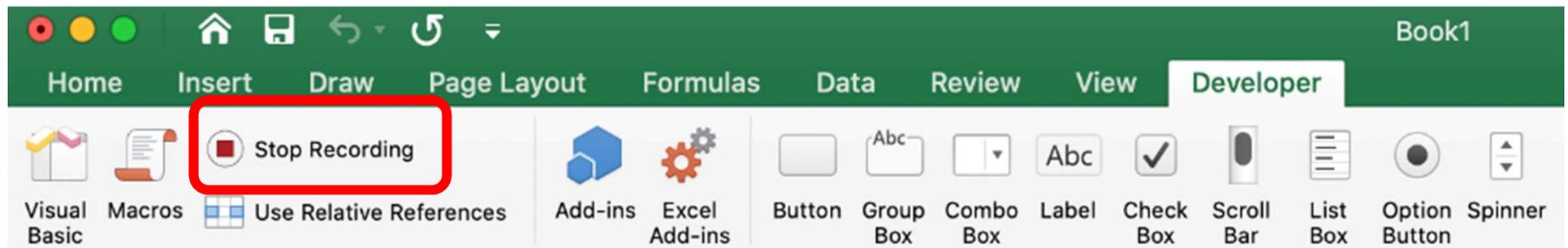
Store macro in:
This Workbook

Shortcut key:
Option+Cmd+

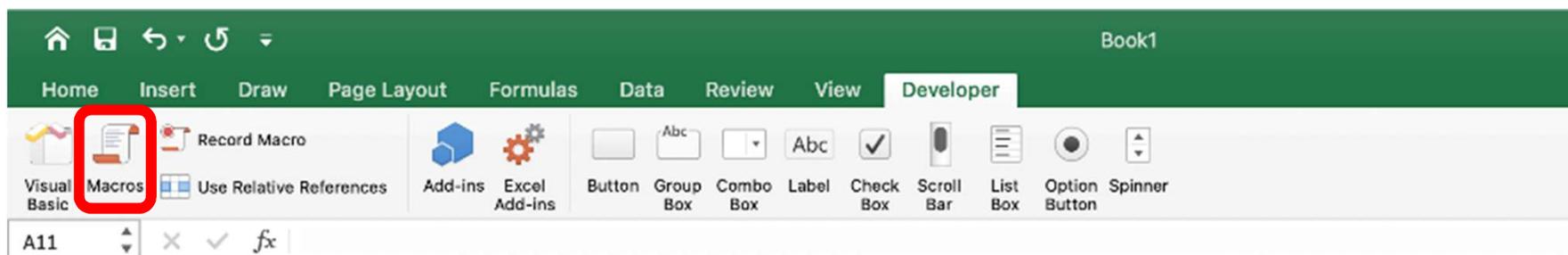
Description:

Cancel OK

停止錄製



開啟巨集 (左邊為錄製)



The image shows the Microsoft Excel interface with the Developer ribbon selected. The ribbon contains several groups of controls. The 'Visual Basic' group is highlighted with a red box, and the 'Macros' icon is also highlighted with a red box. Other icons in the ribbon include Record Macro, Use Relative References, Add-ins, Excel Add-ins, Button, Group Box, Combo Box, Label, Check Box, Scroll Bar, List Box, Option Button, and Spinner.

	A	B	C	D
1	1		1	
2	2		2	
3	3		3	
4				
5	6			
6				
7				

選擇要跑的巨集

The image shows the Microsoft Excel interface with the Developer tab selected. A dialog box titled "Macro" is open, displaying a list of macros. The "Run" button at the bottom right of the dialog box is highlighted with a red square.

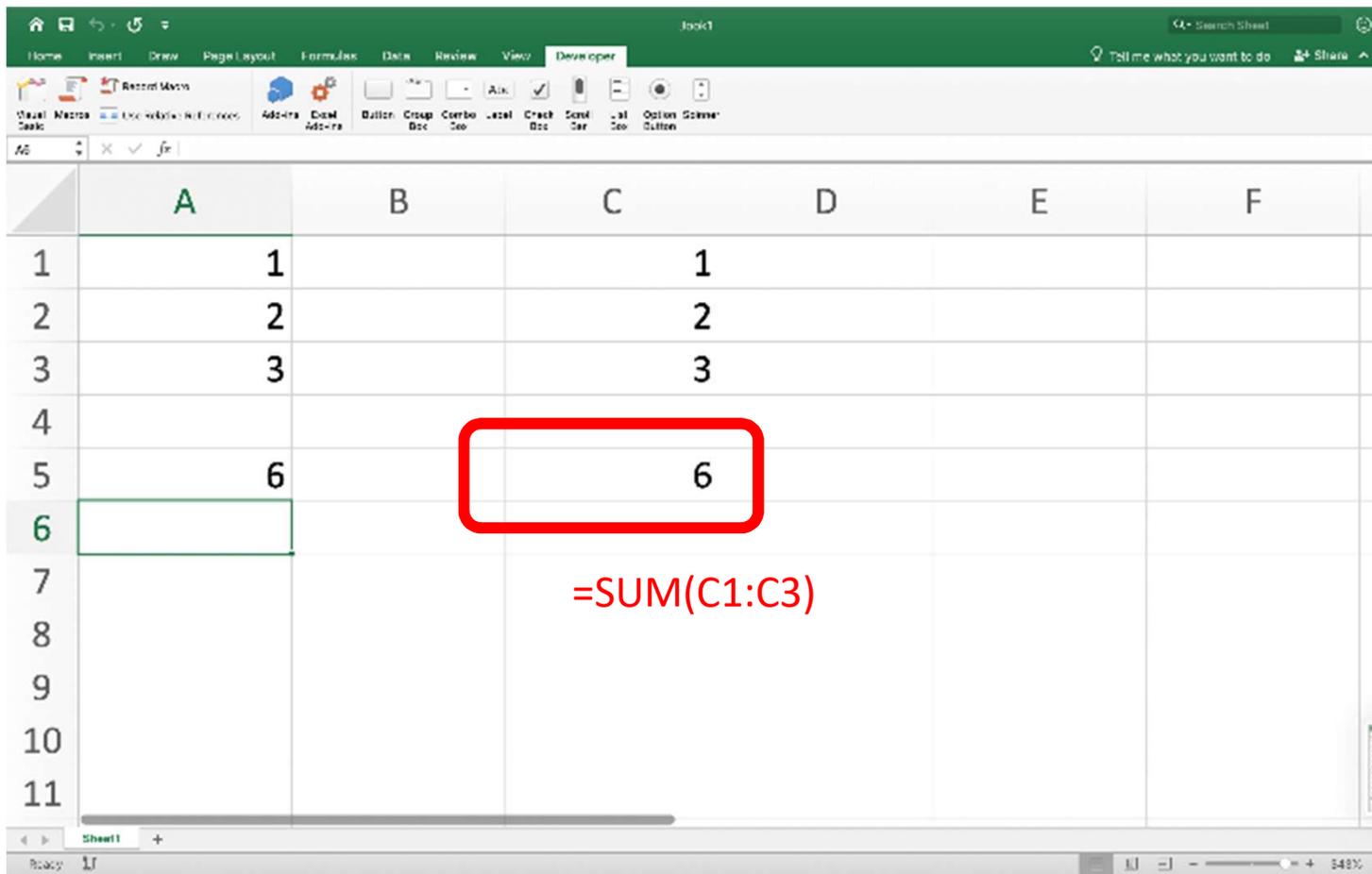
Excel Ribbon: Home, Insert, Draw, Page Layout, Formulas, Data, Review, View, Developer

Macro Dialog Box:

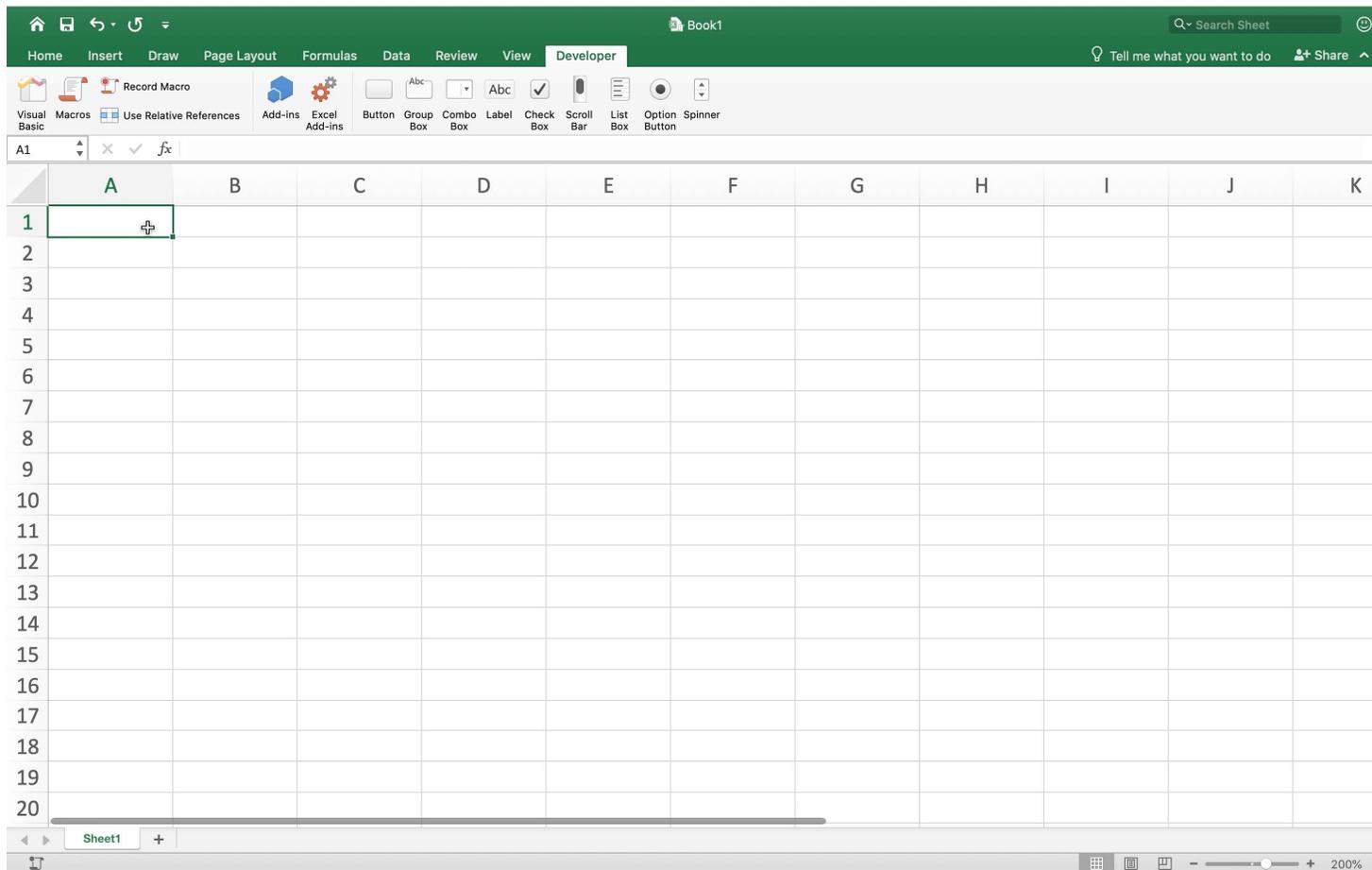
- Macro name: Macro1
- Macro1
- Macro2
- Macro3
- Macros in: All Open Workbooks
- Description: Options...
- Buttons: Cancel, Step, Edit, Run

	A	B	E
1		1	
2		2	
3		3	
4			
5		6	
6			
7			
8			
9			

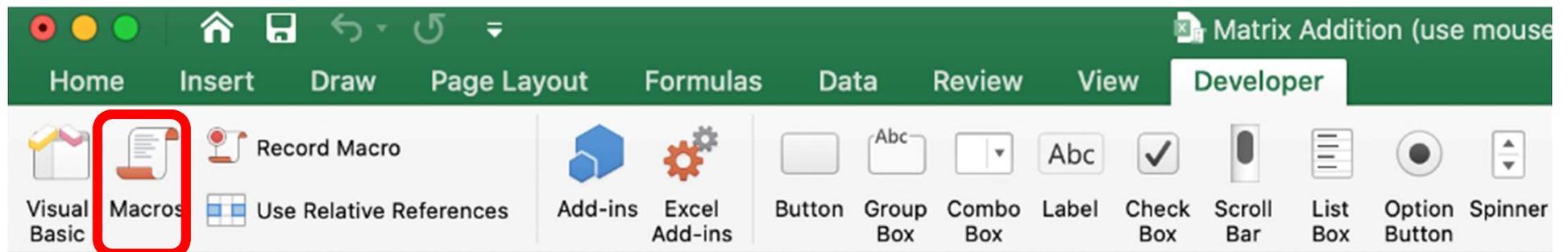
自動跑出來！



錄製、使用巨集影片示意



編輯巨集 VBA 語法



Macro

Macro name:

Macro3

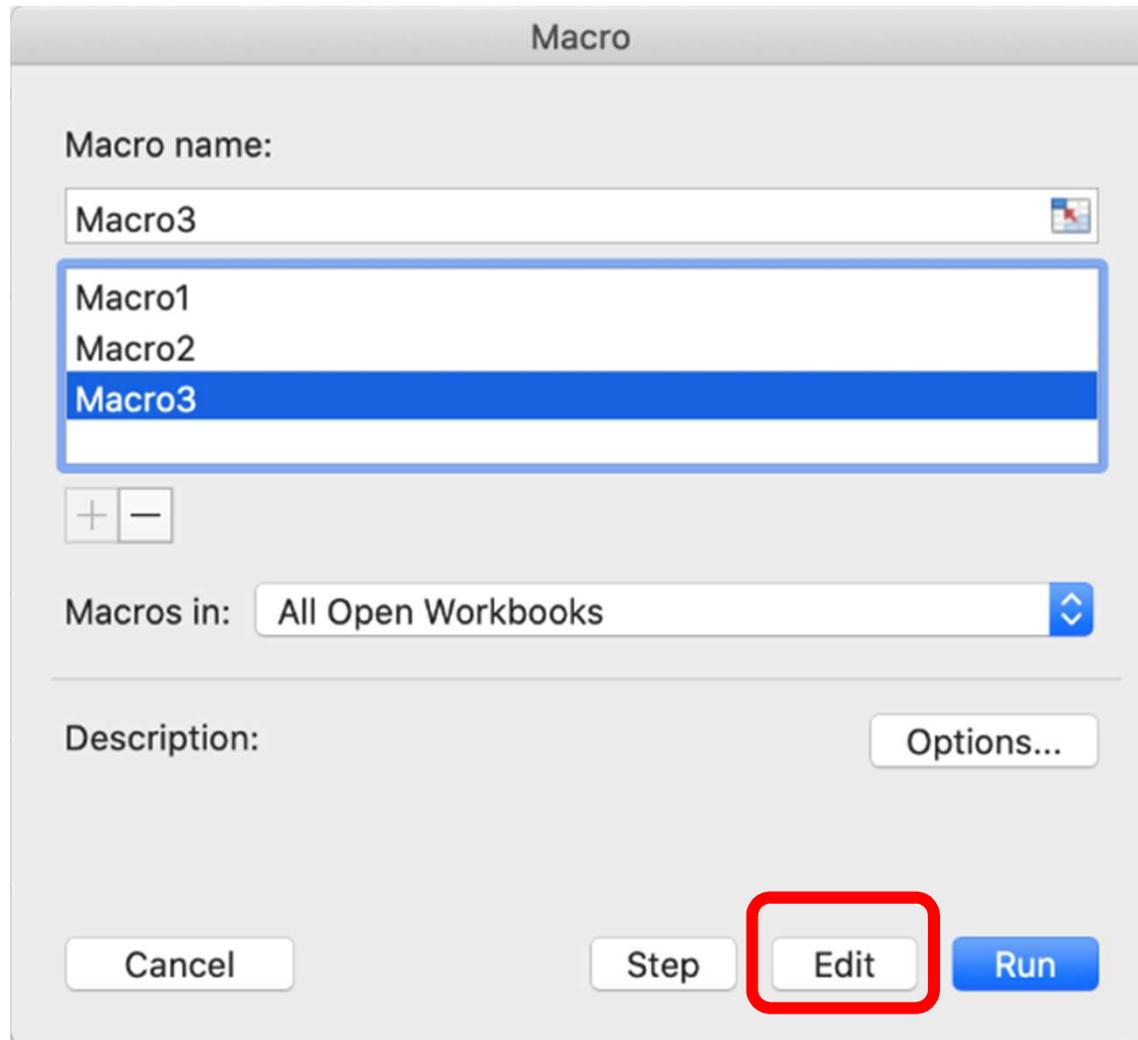
Macro1
Macro2
Macro3

+ -

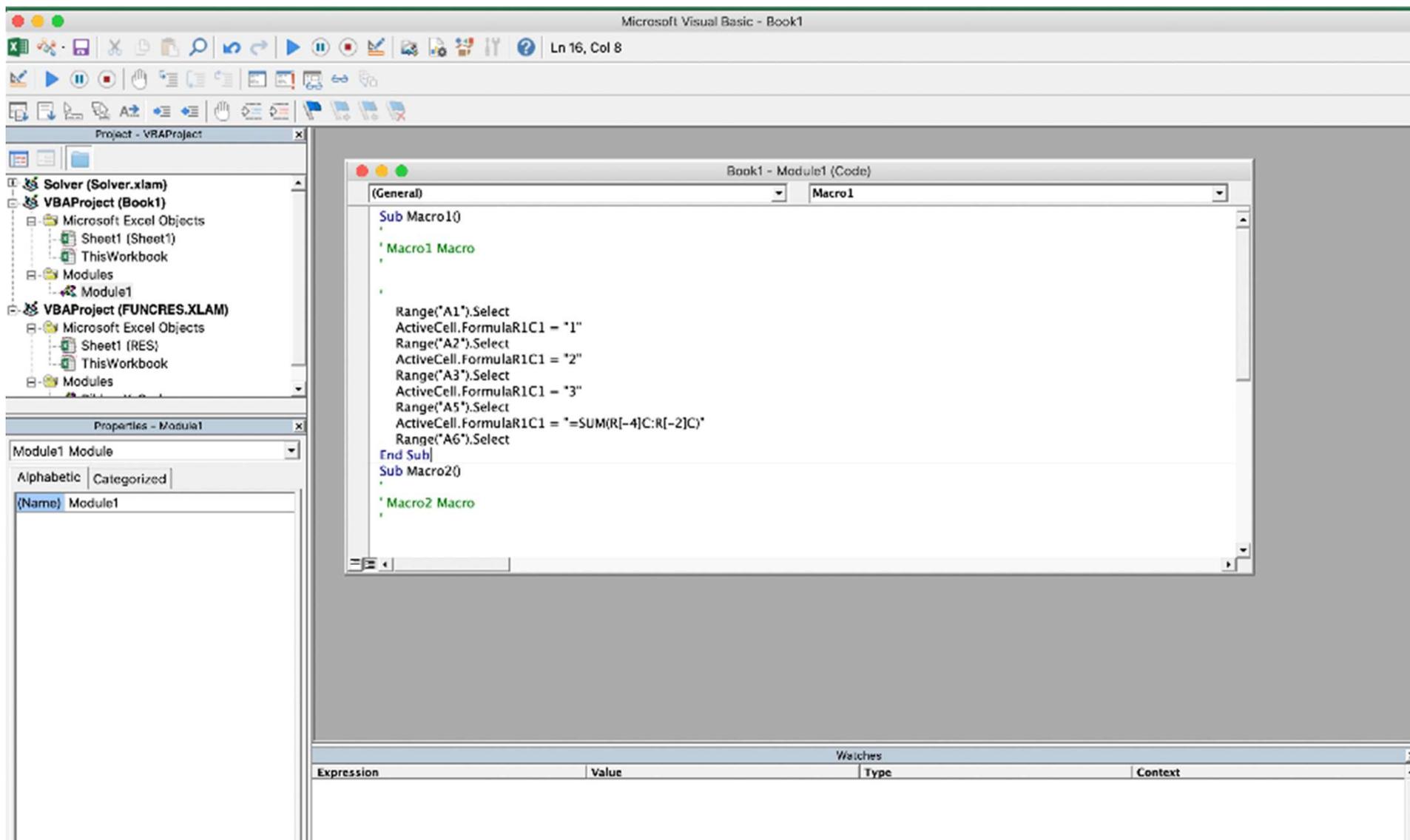
Macros in: All Open Workbooks

Description: Options...

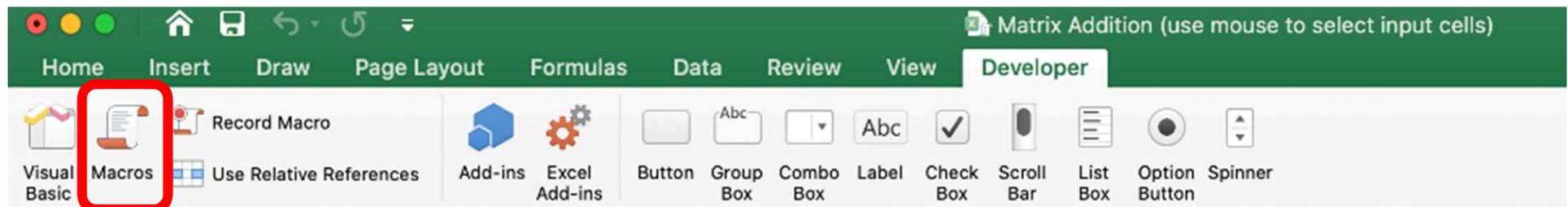
Cancel Step Edit Run

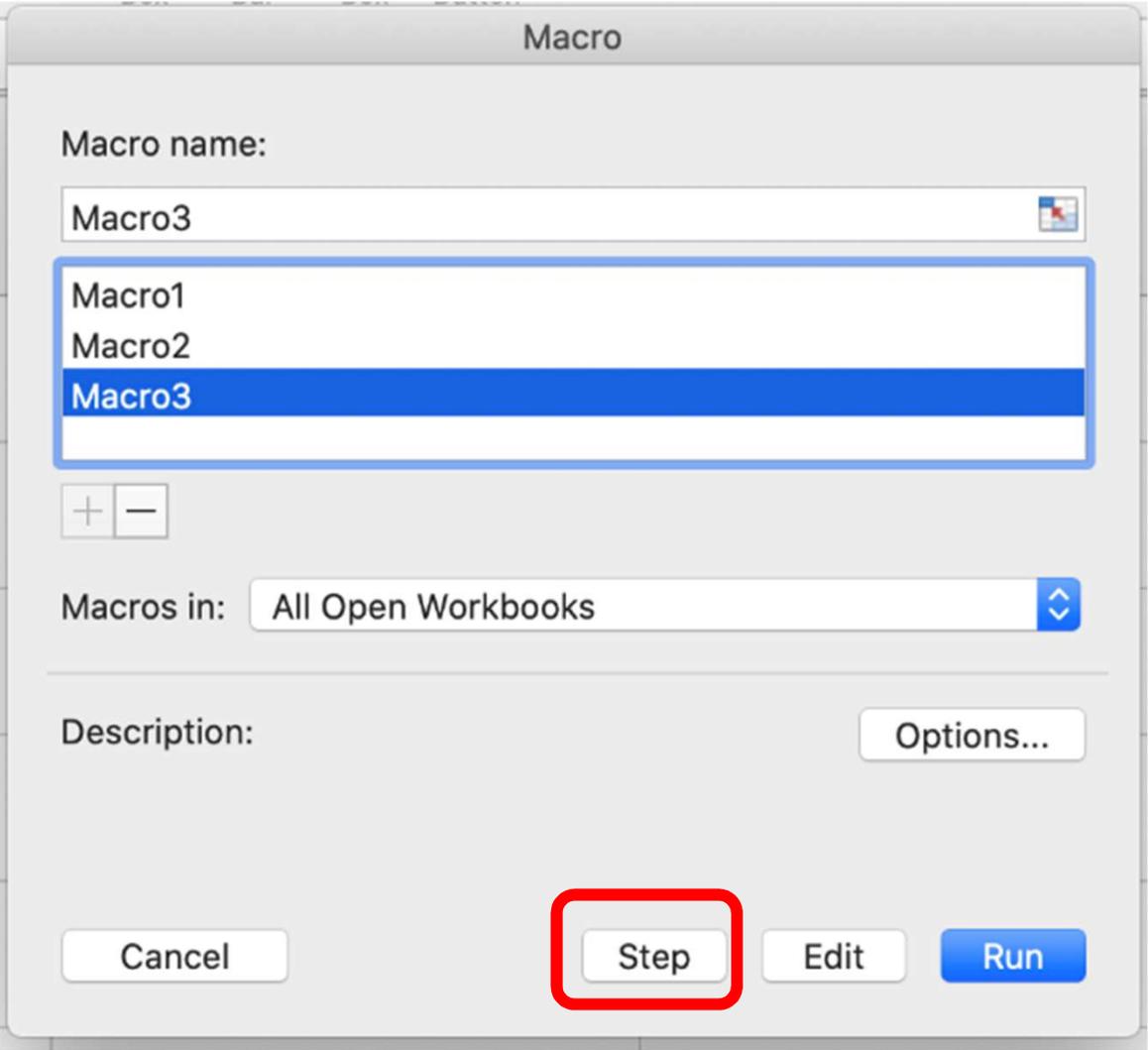


跳出 VB Editor 視窗

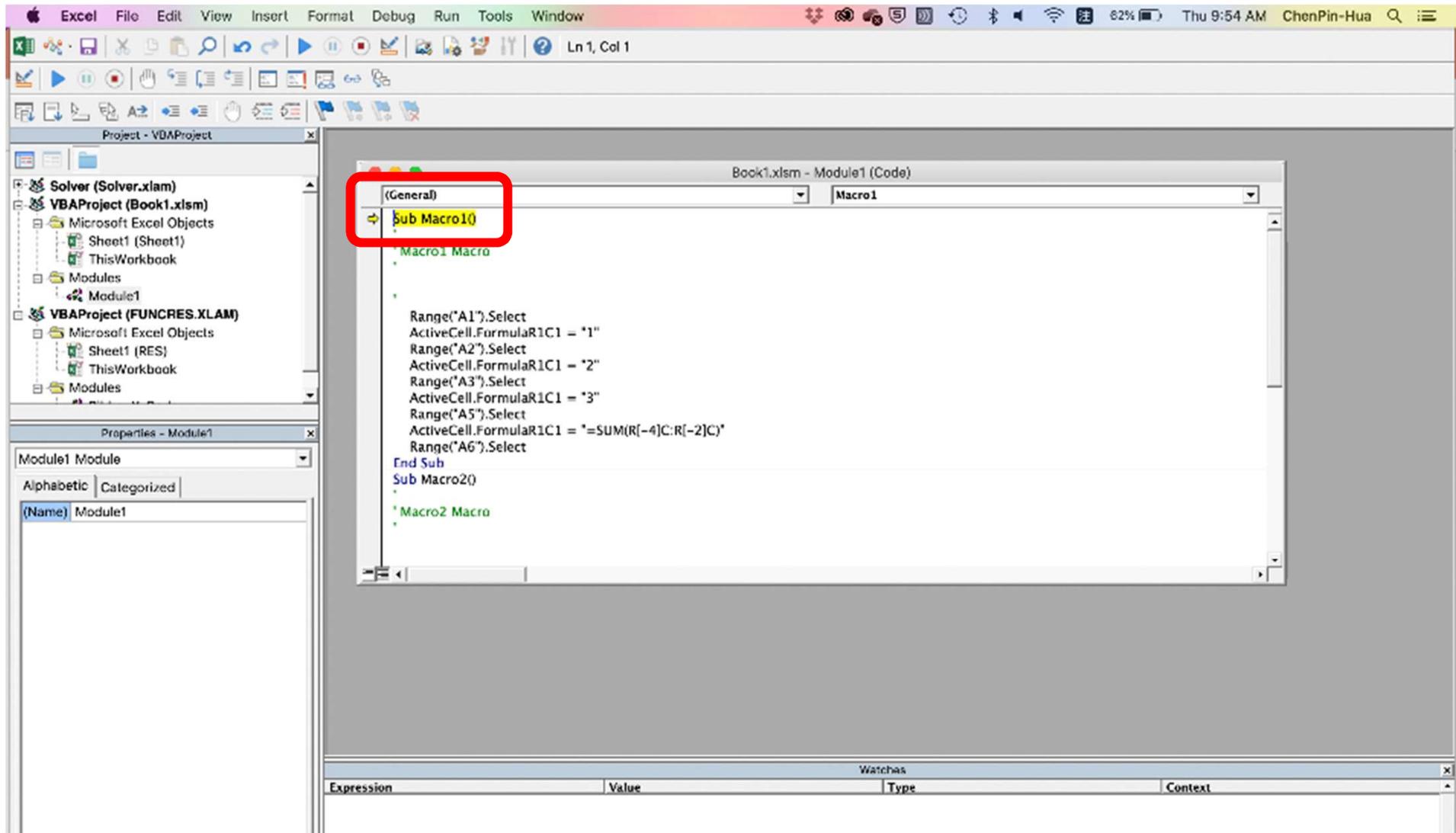


逐步檢視巨集 VBA 語法

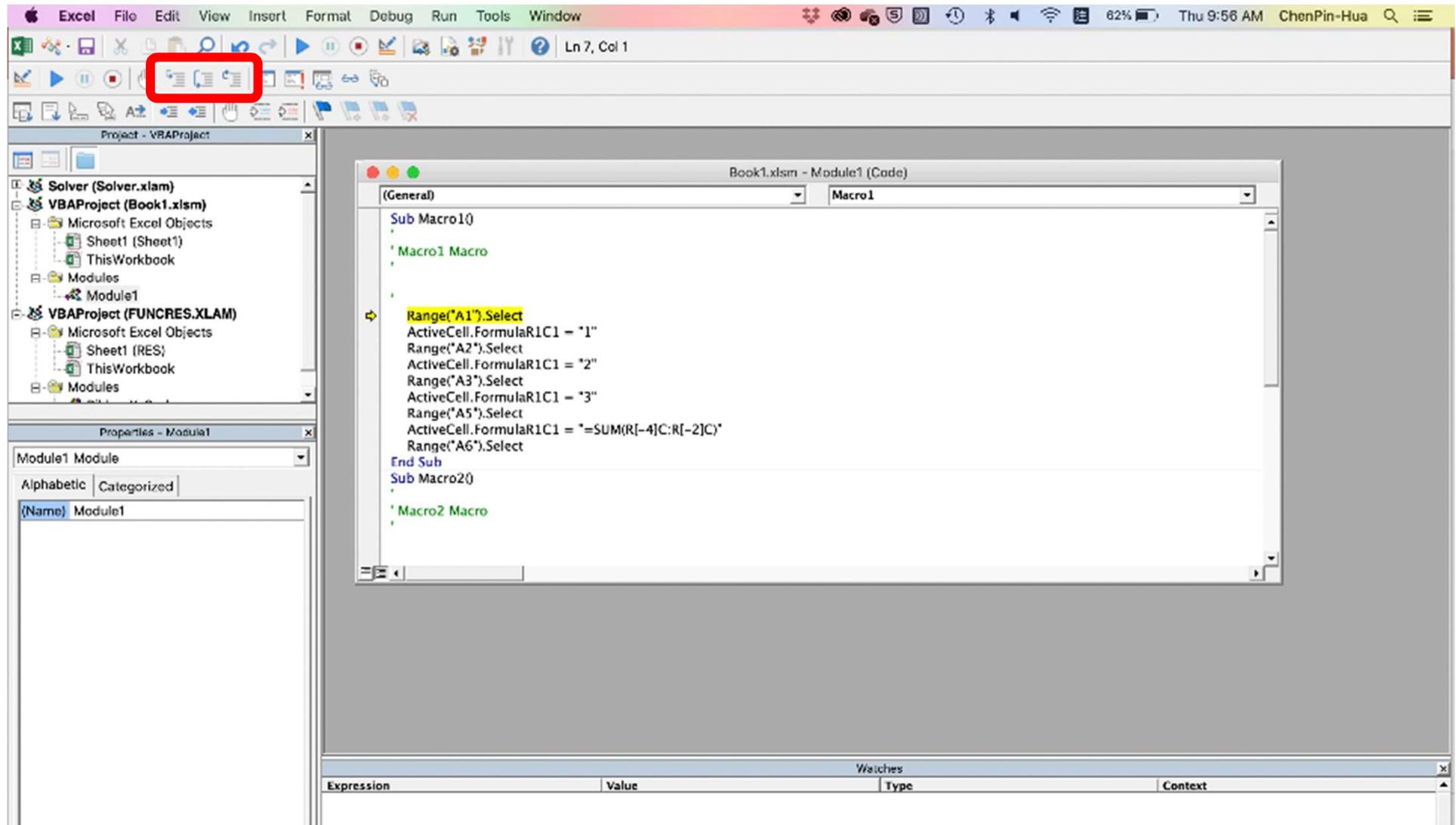




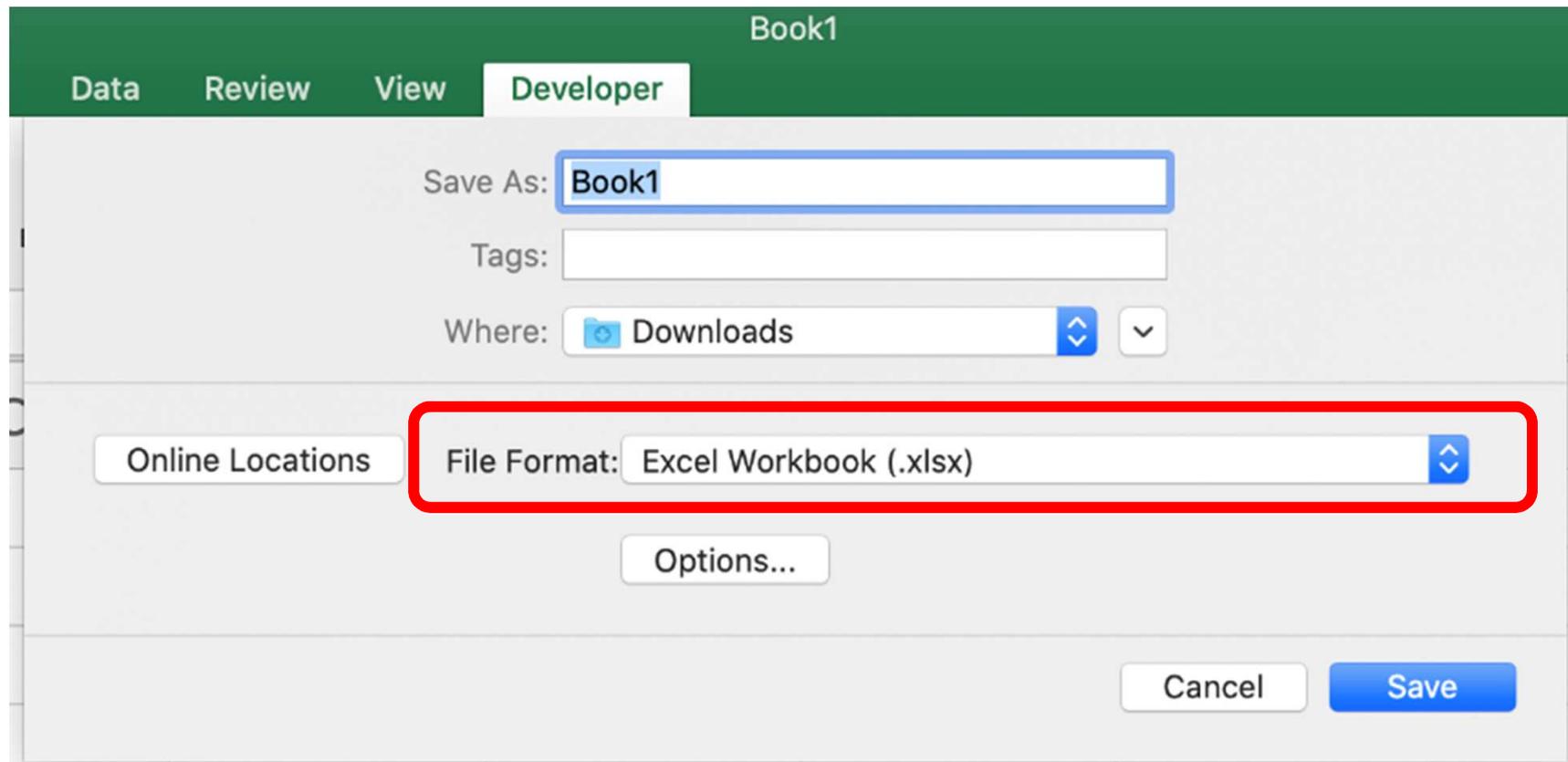
跳出視窗 (有反黃為目前步驟)



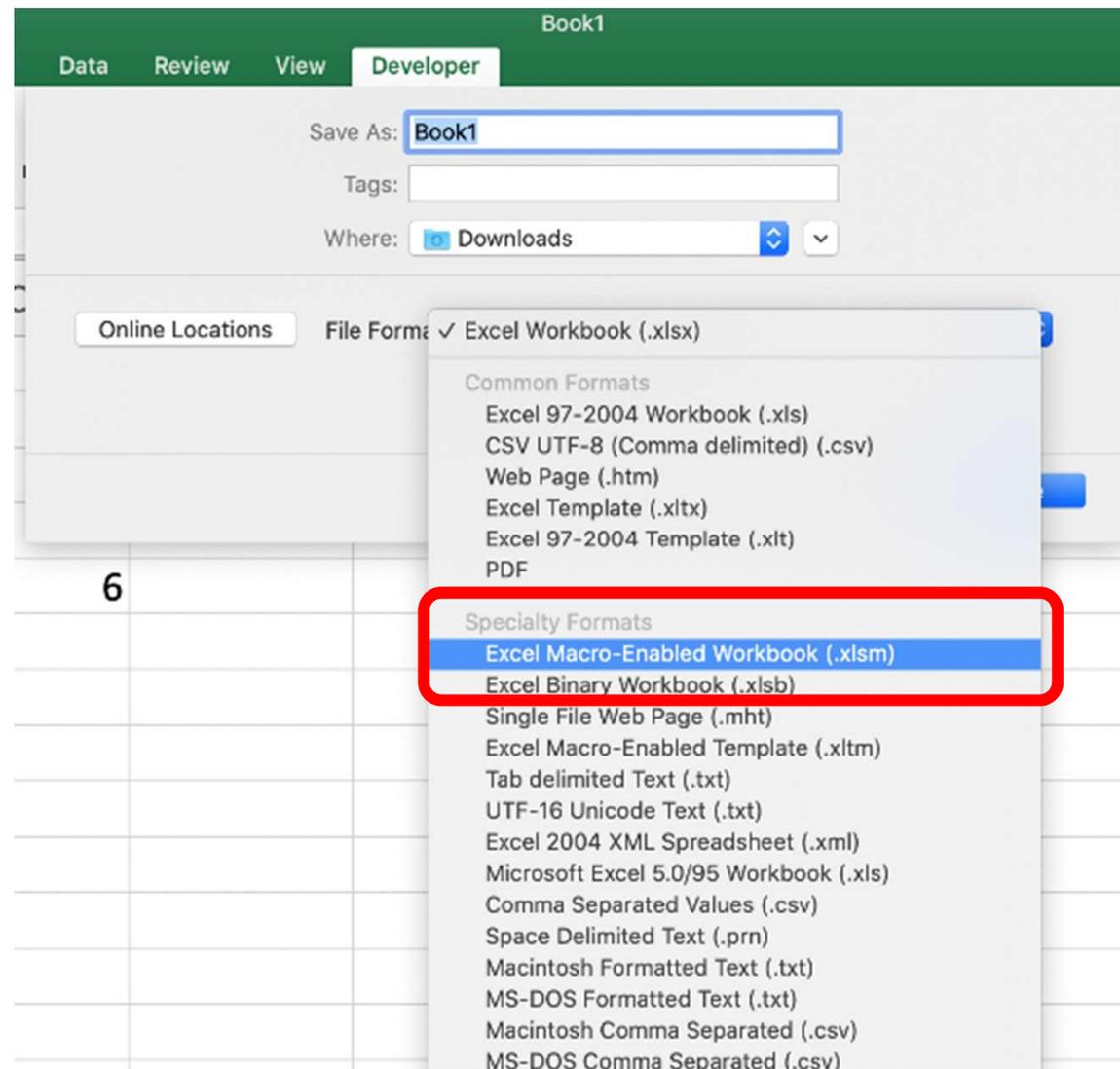
點選「逐行檢視」等就會繼續往下跑



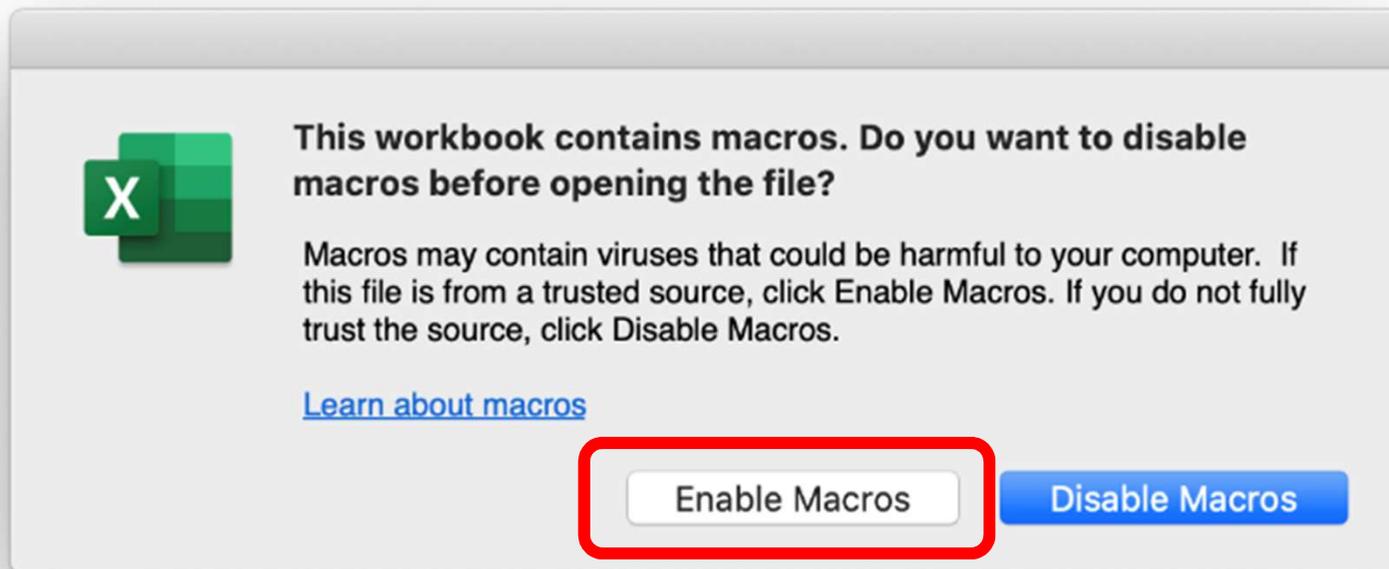
在 Mac 中存帶有巨集的檔案



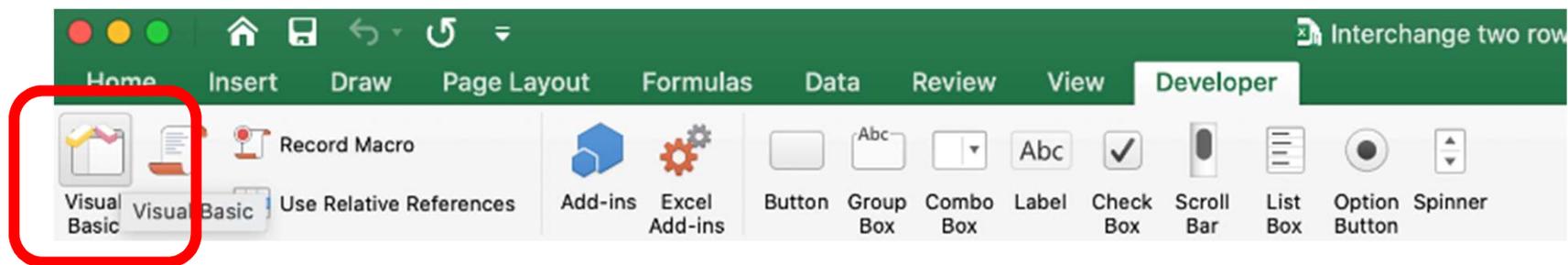
選擇 .xlsm 結尾的檔案類型



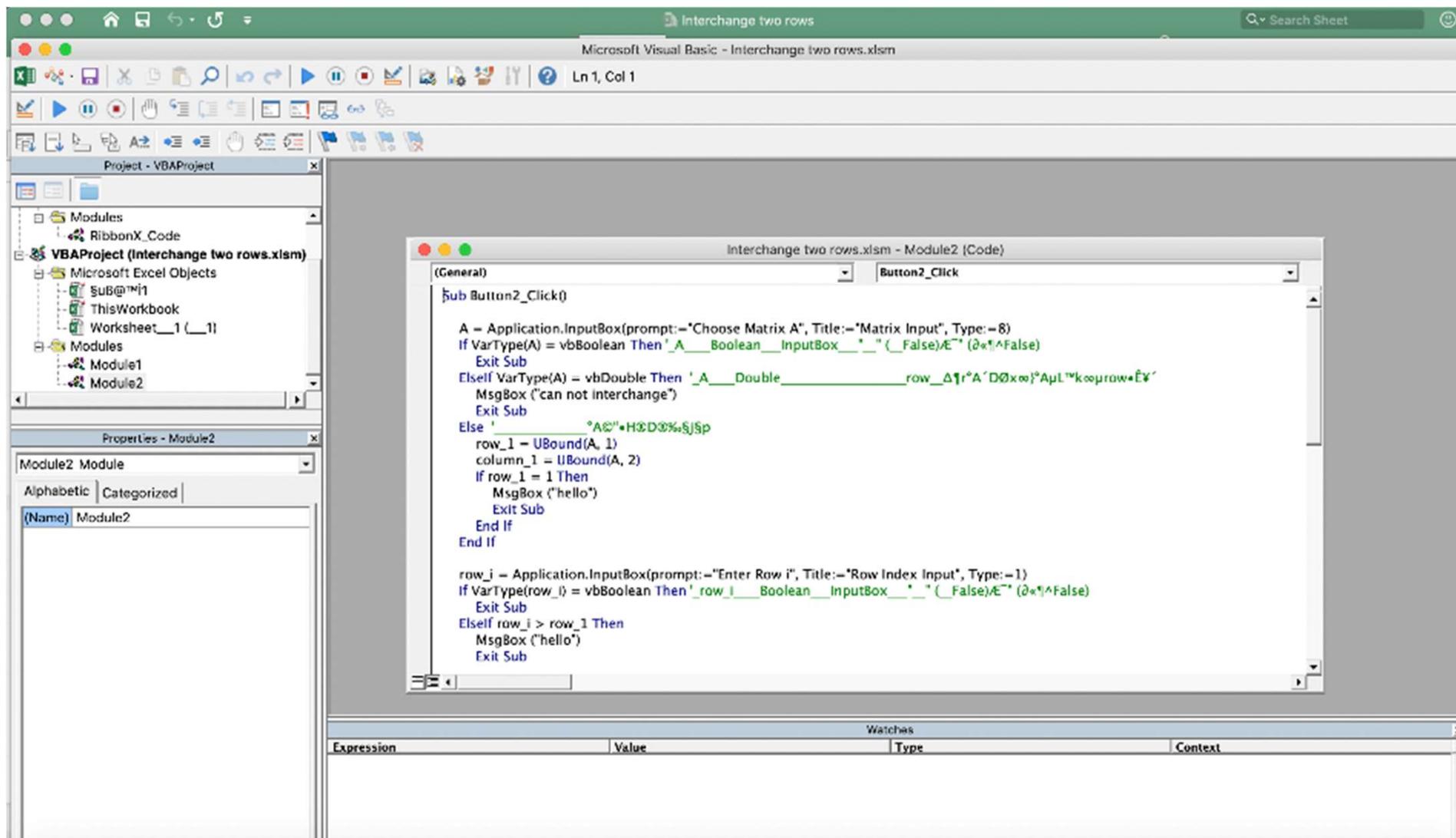
下次開啟檔案時就會詢問要不要啟用巨集



打開 Visual Basic Editor



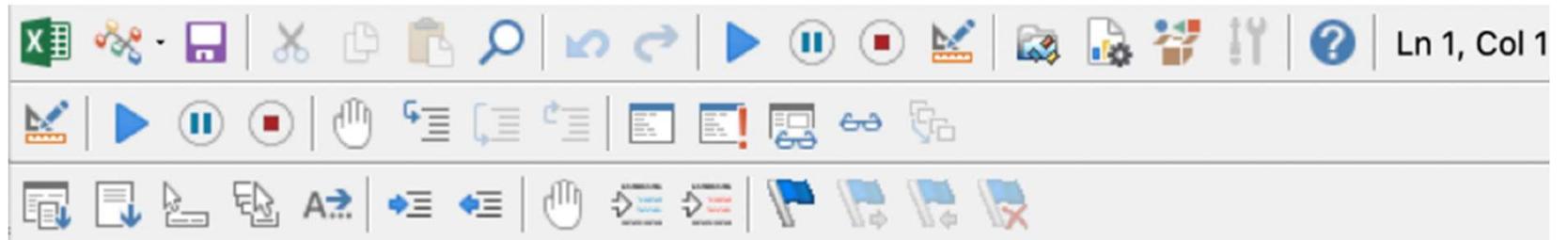
Visual Basic Editor 視窗畫面



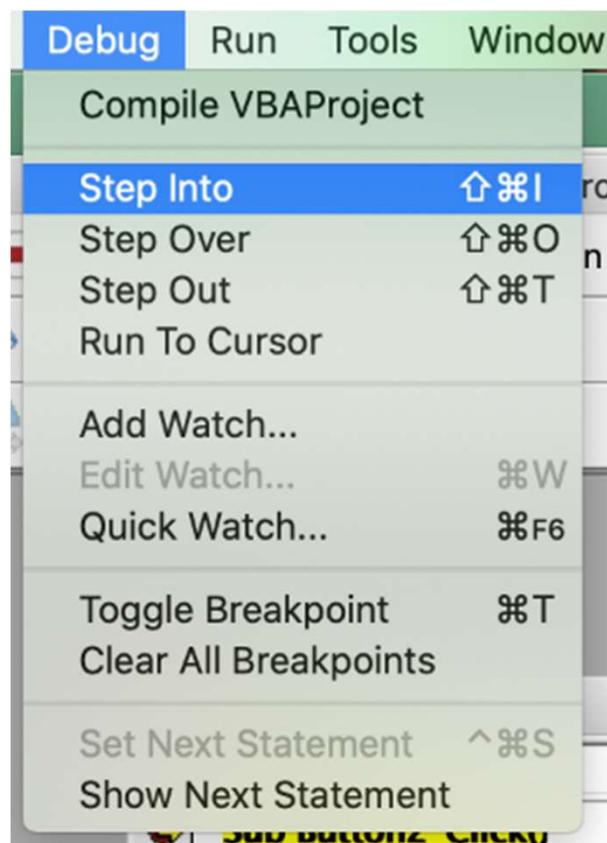
功能區

跑程式使用

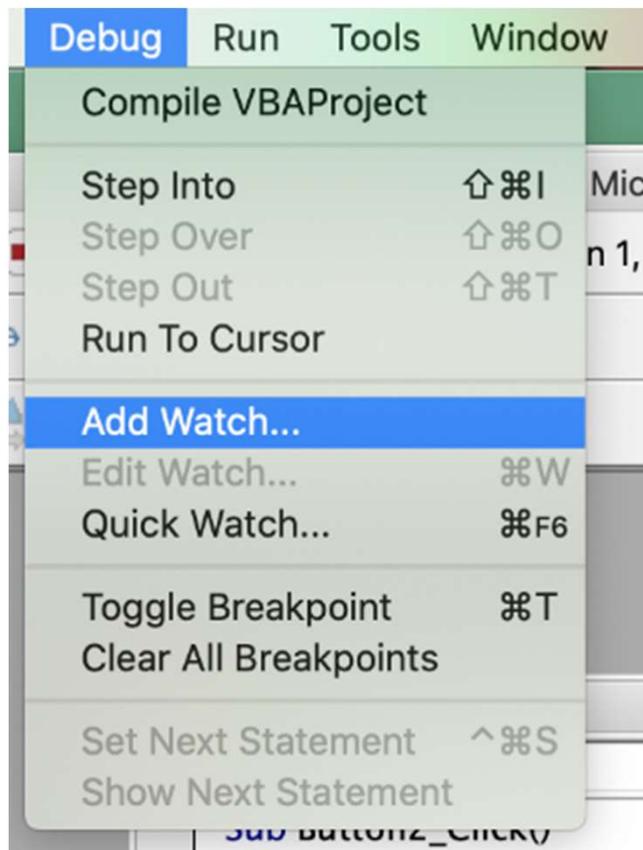
寫程式使用



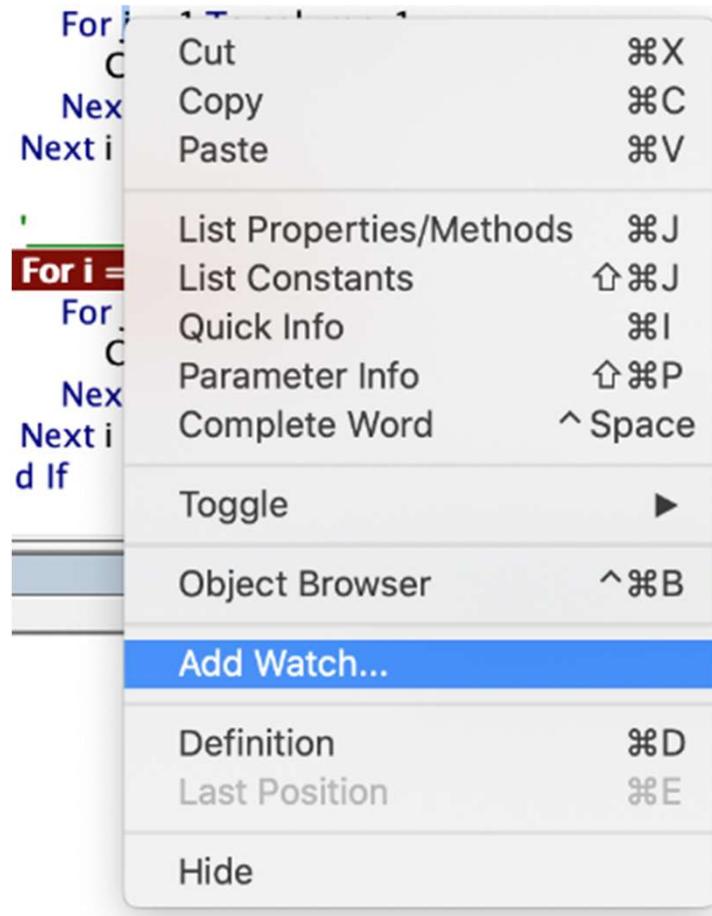
逐行、段落檢視程式碼



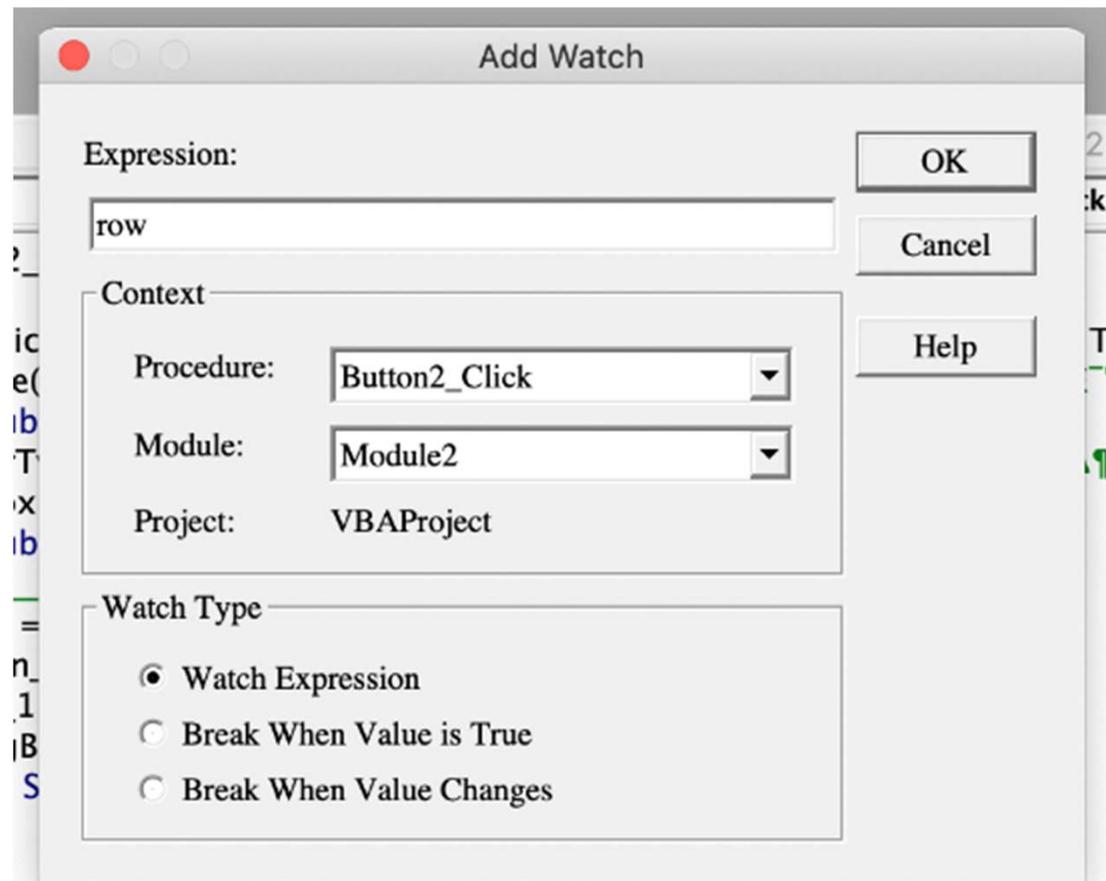
新增監看視窗



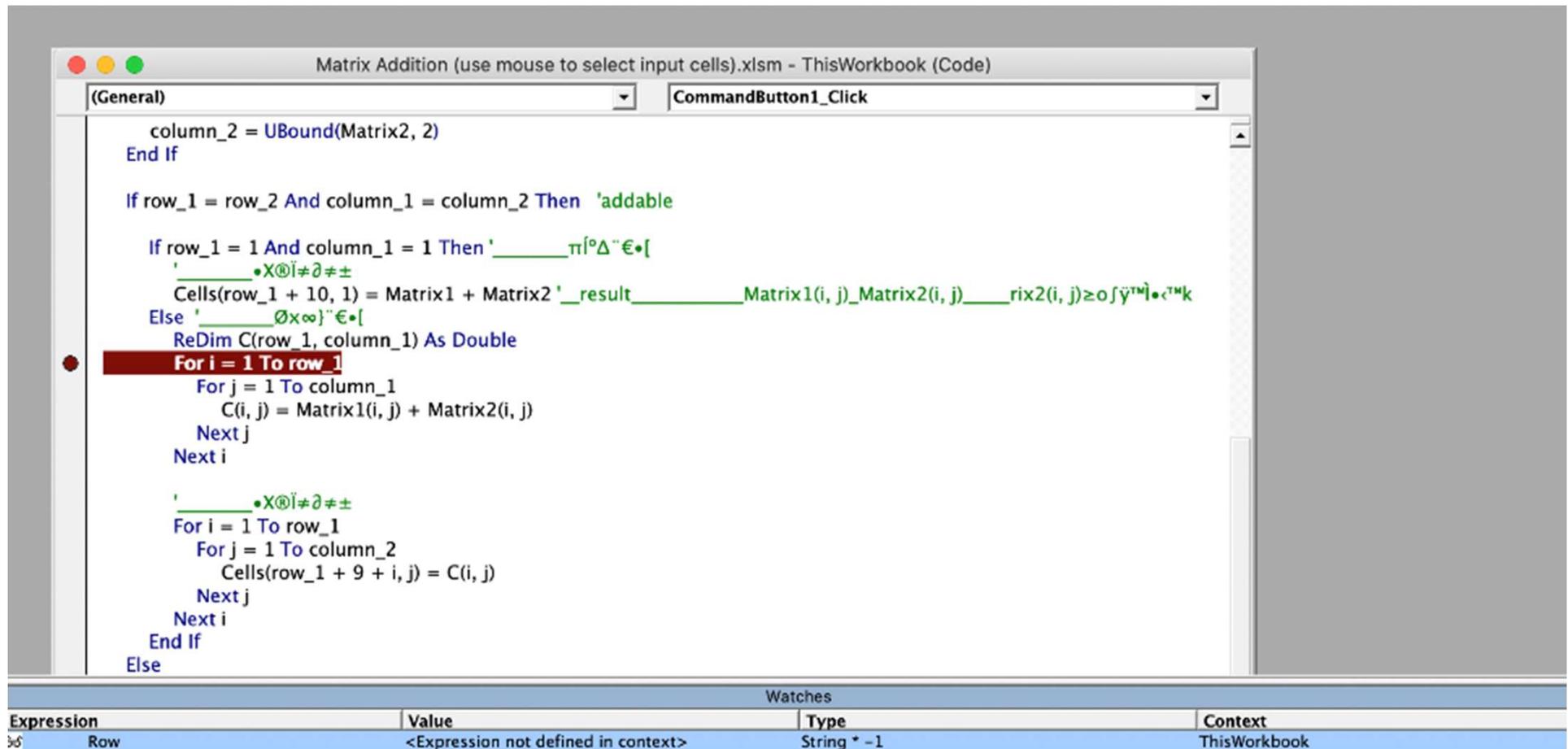
或選取想監看的值按右鍵



設定監看視窗



監看視窗 開始跑程式後會出現數值



The screenshot displays the VBA Code Editor for a workbook named "Matrix Addition (use mouse to select input cells).xslm - ThisWorkbook (Code)". The code is written in VBA and includes the following logic:

```
column_2 = UBound(Matrix2, 2)
End If

If row_1 = row_2 And column_1 = column_2 Then 'addable

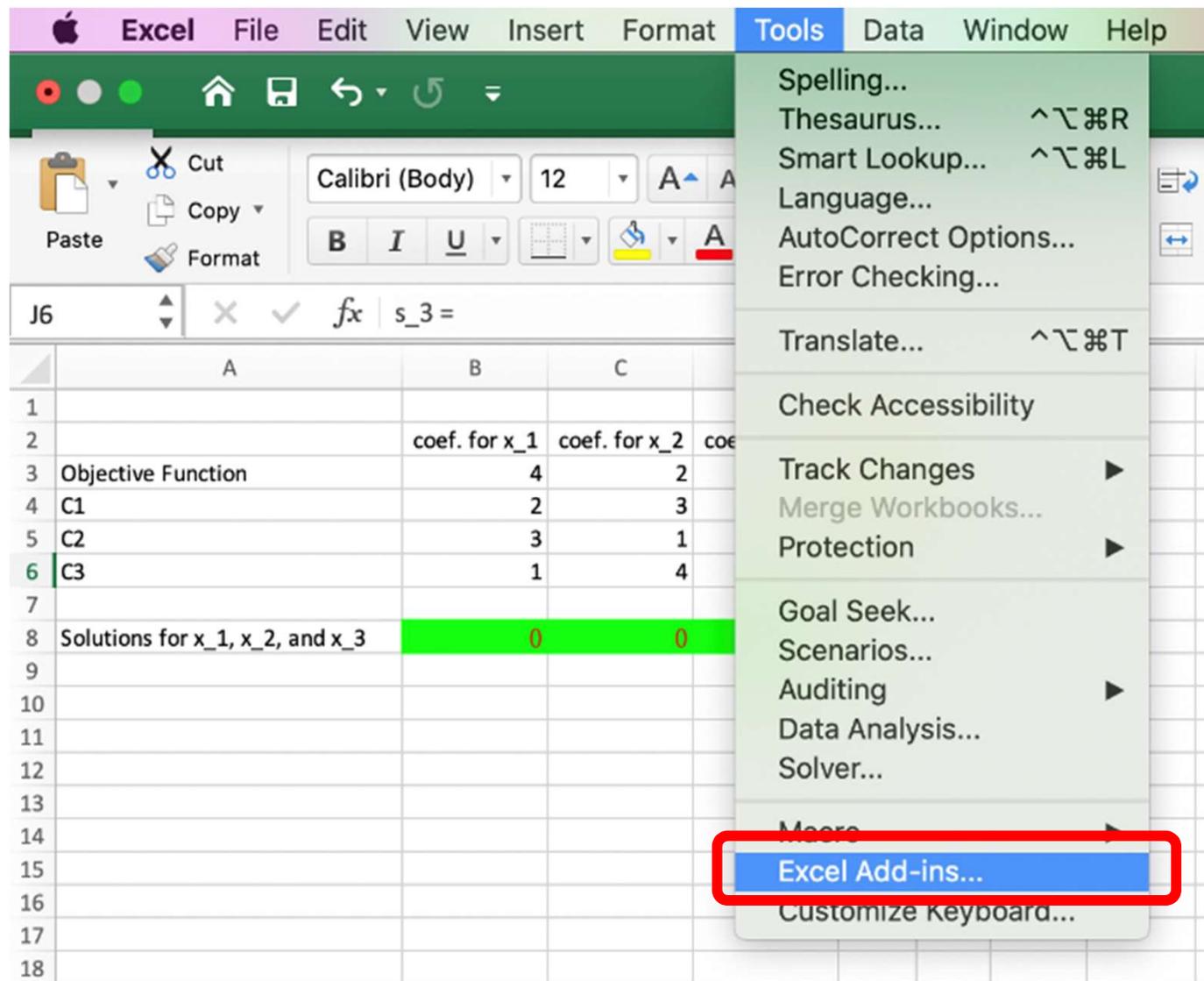
If row_1 = 1 And column_1 = 1 Then '_____πí°Δ"€•[
'_____•X@í≠ð≠±
Cells(row_1 + 10, 1) = Matrix1 + Matrix2 '___result_____Matrix1(i, j)_Matrix2(i, j)___rix2(i, j)≥o fŷ™]•.™k
Else '_____Øx∞}"€•[
ReDim C(row_1, column_1) As Double
For i = 1 To row_1
    For j = 1 To column_1
        C(i, j) = Matrix1(i, j) + Matrix2(i, j)
    Next j
Next i

'_____•X@í≠ð≠±
For i = 1 To row_1
    For j = 1 To column_2
        Cells(row_1 + 9 + i, j) = C(i, j)
    Next j
Next i
End If
Else
```

The 'Watches' window at the bottom of the editor shows the following information:

Expression	Value	Type	Context
Row	<Expression not defined in context>	String * -1	ThisWorkbook

叫出規劃求解 Solver 按鈕



Add-ins

Add-ins available:

- Analysis ToolPak
- Solver Add-In

Analysis ToolPak

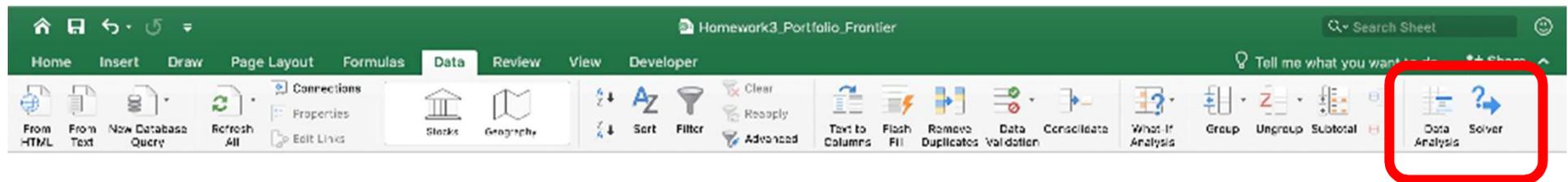
Provides data analysis tools for statistical and engineering analysis

Browse...

Cancel

OK

在資料分析 tab 中會出現規劃求解



有哪個作業需要用到規劃求解的話(上課會講解)

The screenshot shows an Excel spreadsheet with a linear programming problem. The Solver Parameters dialog box is open, showing the following configuration:

- Set Objective:** $\$E\3
- To:** Max Min Value Of: 0
- By Changing Variable Cells:** $\$B\$3:\$D\3
- Subject to the Constraints:**
 - $\$F\$4 <= \$G\4
 - $\$E\$5:\$E\$6 >= \$G\$5:\$G\6
- Make Unconstrained Variables Non-Negative
- Select a Solving Method:** Simplex LP

The spreadsheet data is as follows:

	coef. for x_1	coef. for x_2	coef. for x_3	Result		
Objective Function	4	2	1	0		
C1	2	3	4	0	<=	14
C2	3	1	5	0	>=	4
C3	1	4	3	0	>=	6
Solutions for $x_1, x_2,$ and x_3	0	0	0			

將過程以巨集錄製

The screenshot displays the Microsoft Excel interface with a linear programming problem set up in a spreadsheet. The Solver Results dialog box is open, indicating that a solution has been found.

Excel Spreadsheet Data:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1																		
2			coef. for x ₁	coef. for x ₂	coef. for x ₃	Result												
3	Objective Function	4	2	1	2													
4	C1	2	3	4	8	<=	14			<= 1 =	6							
5	C2	3	1	5	10	>=	4			<= 2 =	6							
6	C3	1	4	3	6	>=	6			<= 3 =	0							
7																		
8	Solutions for x ₁ , x ₂ , and x ₃	0	0	2														

Solver Results Dialog Box:

Solver found a solution. All constraints and optimality conditions are satisfied.

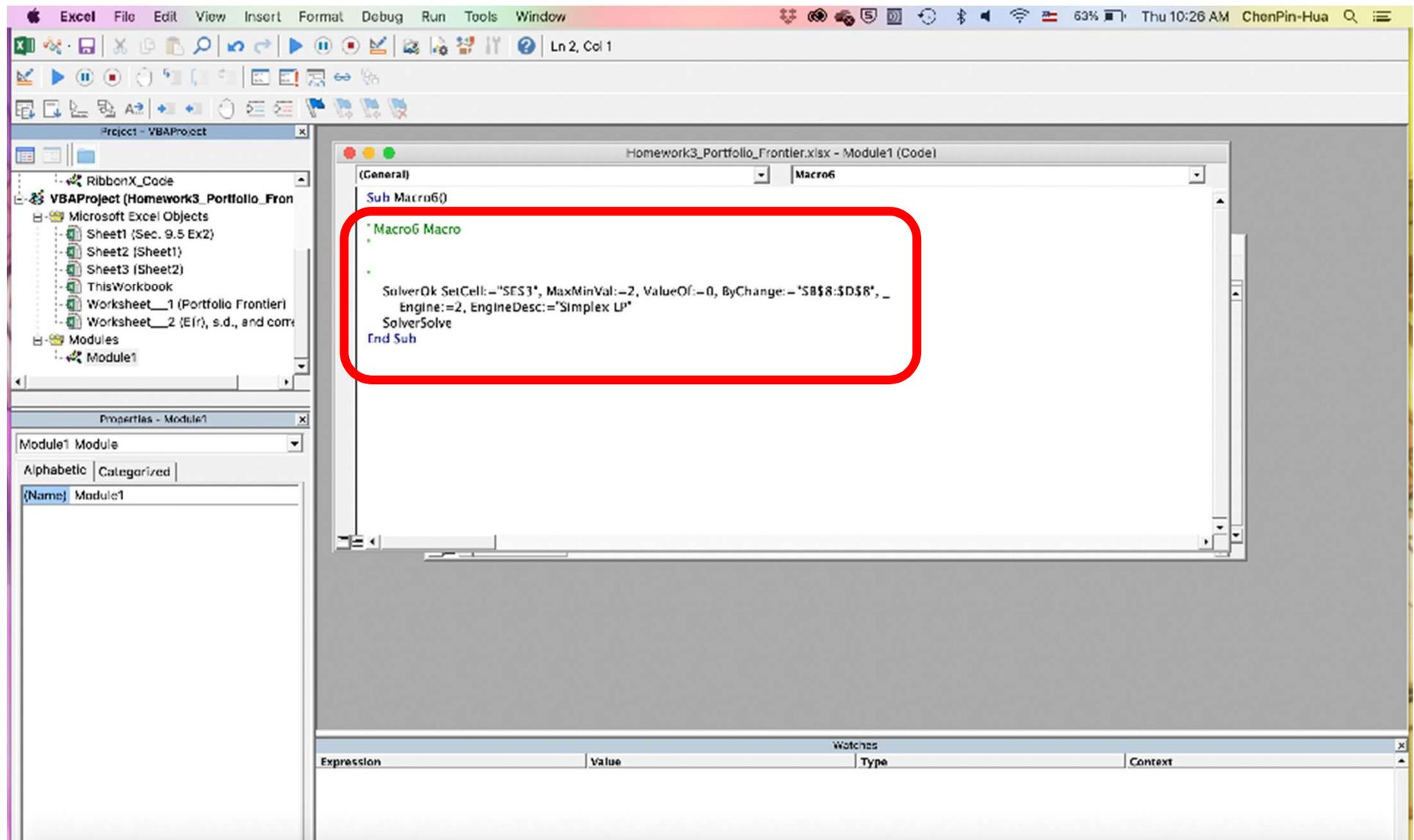
Keep Solver Solution
 Restore Original Values

Return to Solver Parameters Dialog
 Outline Reports

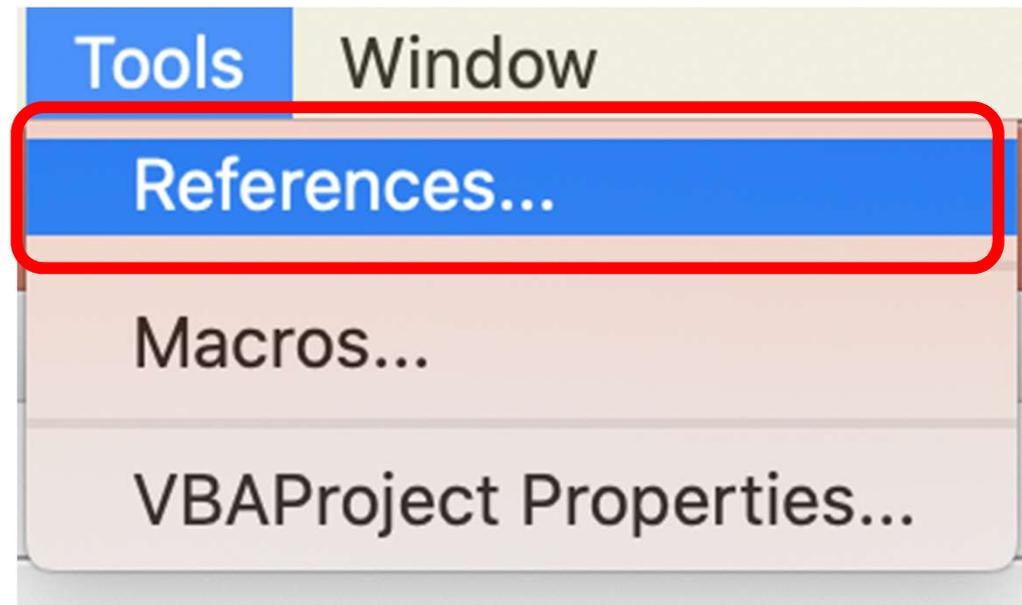
Reports: Answer, Sensitivity, Limits

Buttons: Save Scenario..., Cancel, OK

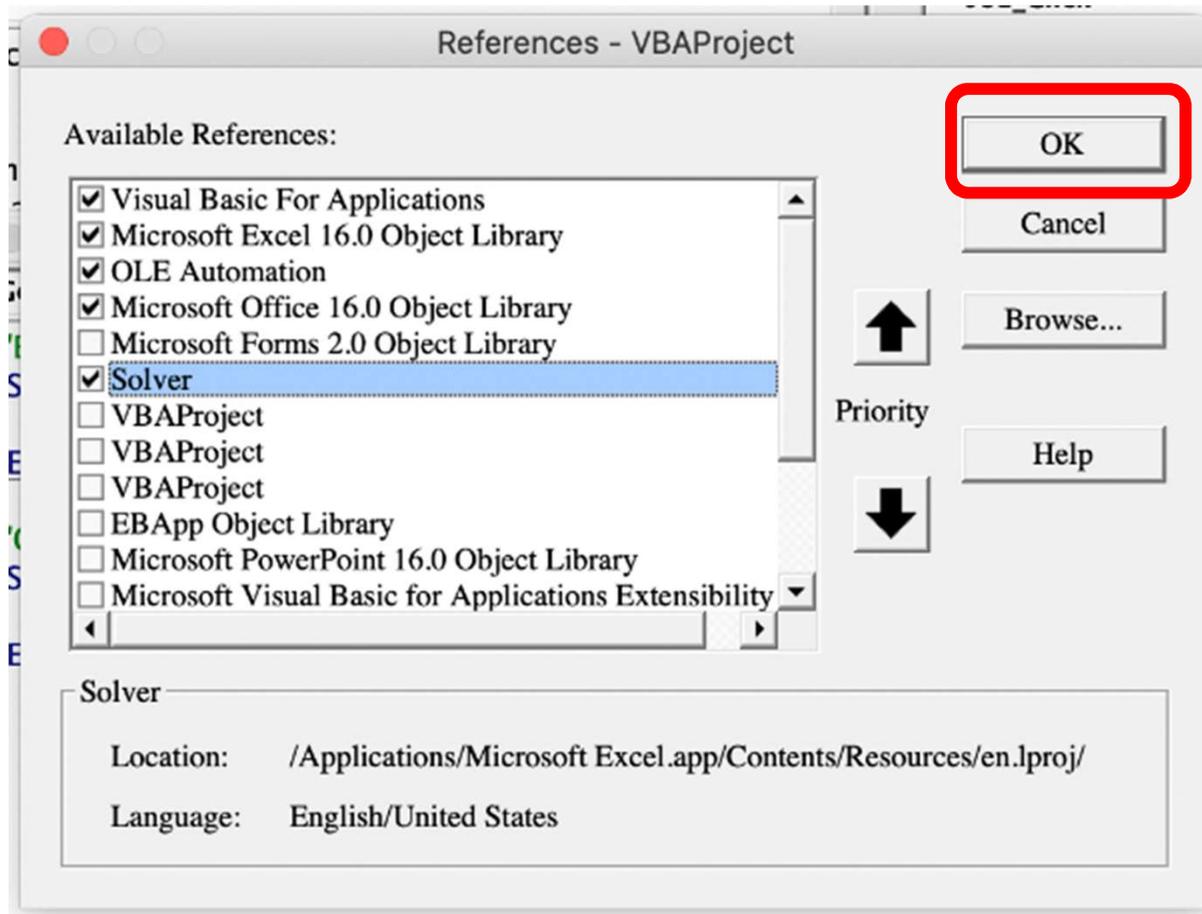
再複製到按鈕的 VBA 程式碼中



跑程式之前要在 VB Editor 中打開 Solver



打勾、OK 就完成了



使用英文版-老師的 VBA 註解變亂碼

基本上不影響程式

```
Sub Button2_Click()  
    A = Application.InputBox(prompt:="Choose Matrix A", Title:="Matrix Input", Type:=8)  
    If VarType(A) = vbBoolean Then 'A___Boolean___InputBox___' (_False)Æ™ (ð«¶^False)  
        Exit Sub  
    ElseIf VarType(A) = vbDouble Then 'A___Double_____row_Δ¶r°A´DØx∞}°ΑμL™k∞μrow•Êÿ'  
        MsgBox ("can not interchange")  
        Exit Sub  
    Else '_____°A@*+H@D@%$JSp  
        row_1 = UBound(A, 1)  
        column_1 = UBound(A, 2)  
        If row_1 = 1 Then  
            MsgBox ("hello")  
            Exit Sub  
        End If  
    End If  
  
    row_i = Application.InputBox(prompt:="Enter Row i", Title:="Row Index Input", Type:=1)  
    If VarType(row_i) = vbBoolean Then 'row_i___Boolean___InputBox___' (_False)Æ™ (ð«¶^False)  
        Exit Sub  
    ElseIf row_i > row_1 Then  
        MsgBox ("hello")  
    End If  
End Sub
```

如果 Mac 可能跑不動這個 VBA
read only 還是可以看到程式碼

