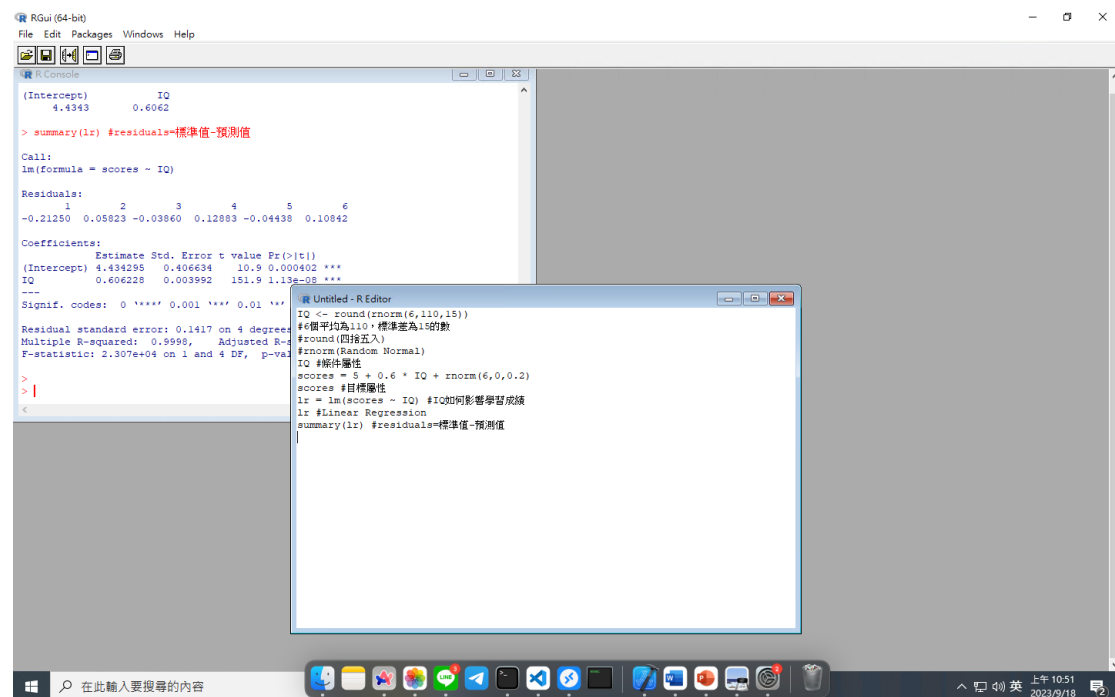


1. 線性回歸



```
(Intercept)      IQ
1.43943      0.6062

> summary(lr) #residuals=標準值-預測值

Call:
lm(formula = scores ~ IQ)

Residuals:
    1      2      3      4      5      6
-0.21250  0.05823 -0.03860  0.12883 -0.04438  0.10842

Coefficients:
(Intercept)      Estimate Std. Error t value Pr(>|t|)
            1.4394295      0.4066384      10.9 0.000402 ***
            IQ          0.606228      0.003992     151.9 1.13e-08 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1.

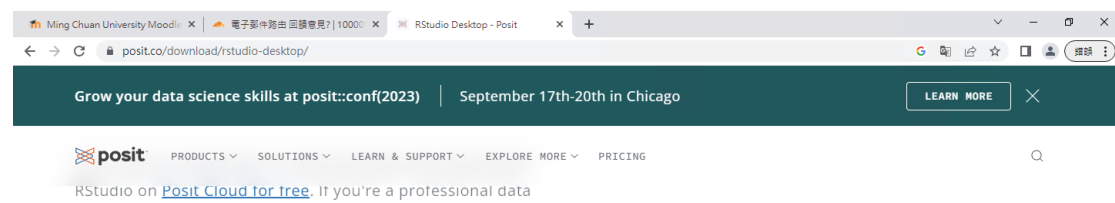
Residual standard error: 0.1417 on 4 degrees of freedom
Multiple R-squared:  0.9998,    Adjusted R-squared:  0.9998
F-statistic: 2.307e+04 on 1 and 4 DF,  p-value: 1.13e-08

>
<
```

```
IQ <- round(rnorm(6,110,15))
#6個平均為110，標準差為15的數
#round(四捨五入)
#rnorm(Random Normal)
IQ #條件屬性
scores = 5 + 0.6 * IQ + rnorm(6,0,0.2)
scores #目標屬性
lr = lm(scores ~ IQ) #IQ如何影響學習成績
lr #Linear Regression
summary(lr) #residuals=標準值-預測值
```

2. 安裝 rstudio

進入 <https://posit.co/download/rstudio-desktop/>



1: Install R

RStudio requires R 3.3.0+. Choose a version of R that matches your computer's operating system.

DOWNLOAD AND INSTALL R

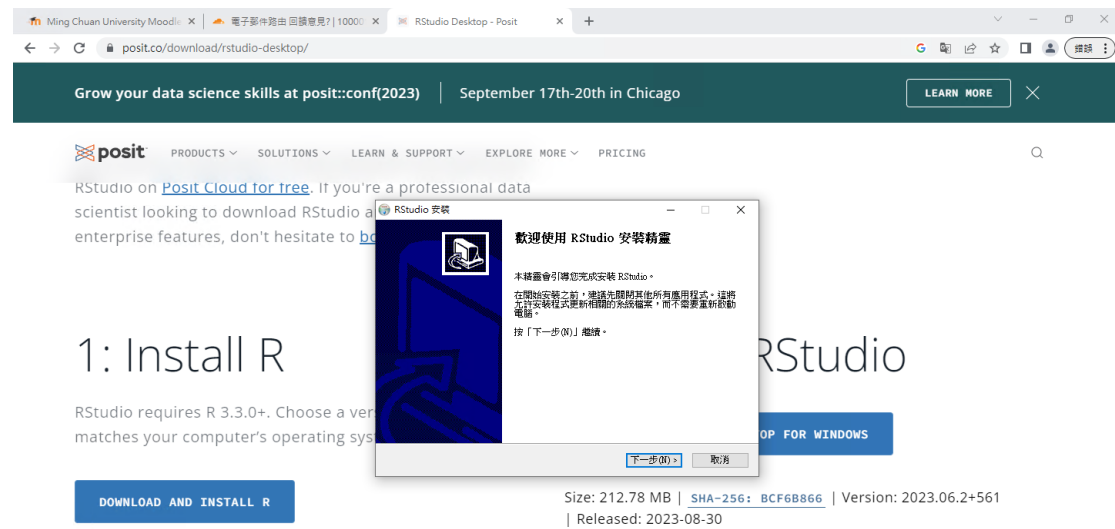
2: Install RStudio

DOWNLOAD RSTUDIO DESKTOP FOR WINDOWS

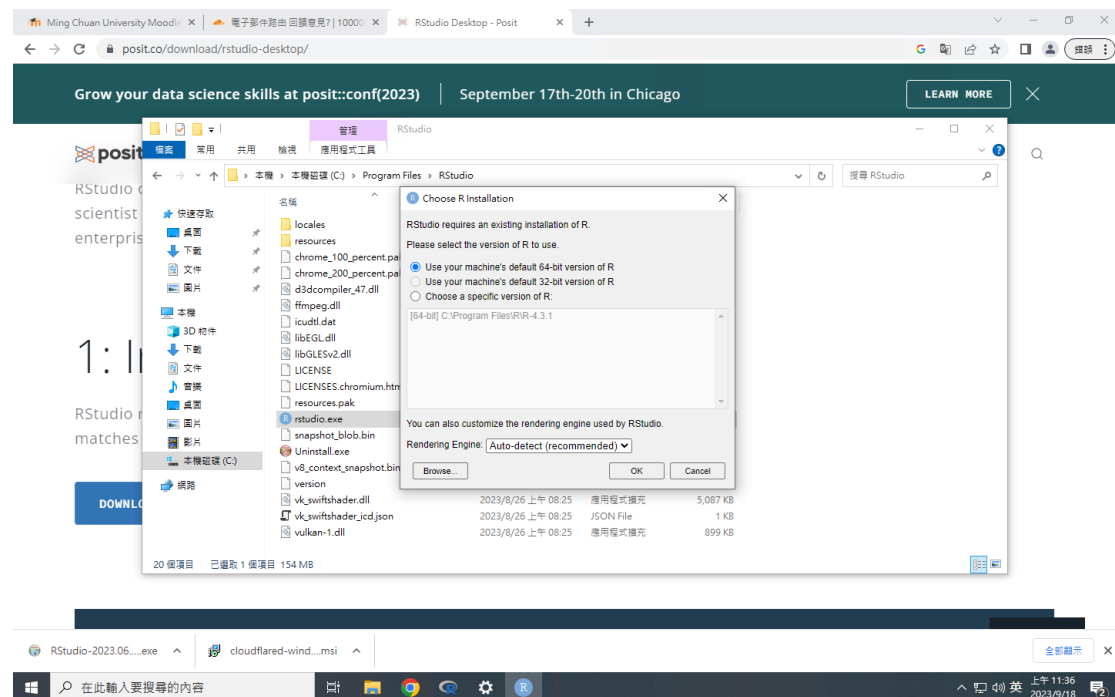
Size: 212.78 MB | [SHA-256: BCF6B866](#) | Version: 2023.06.2+561
Released: 2023-08-30



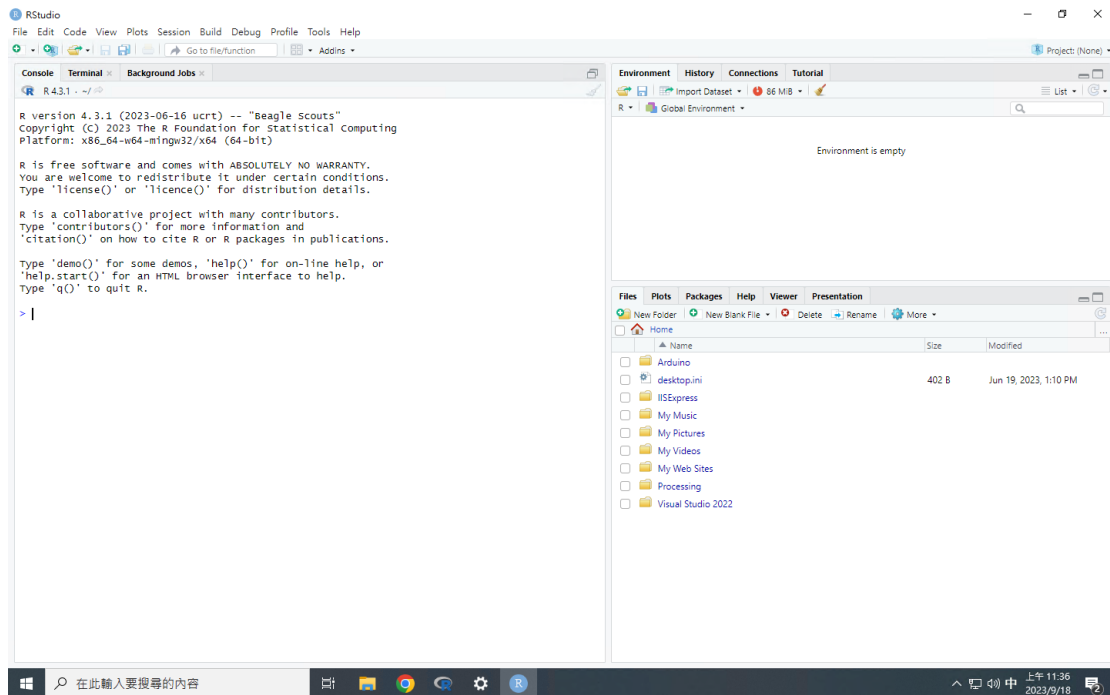
點開後無腦下一步



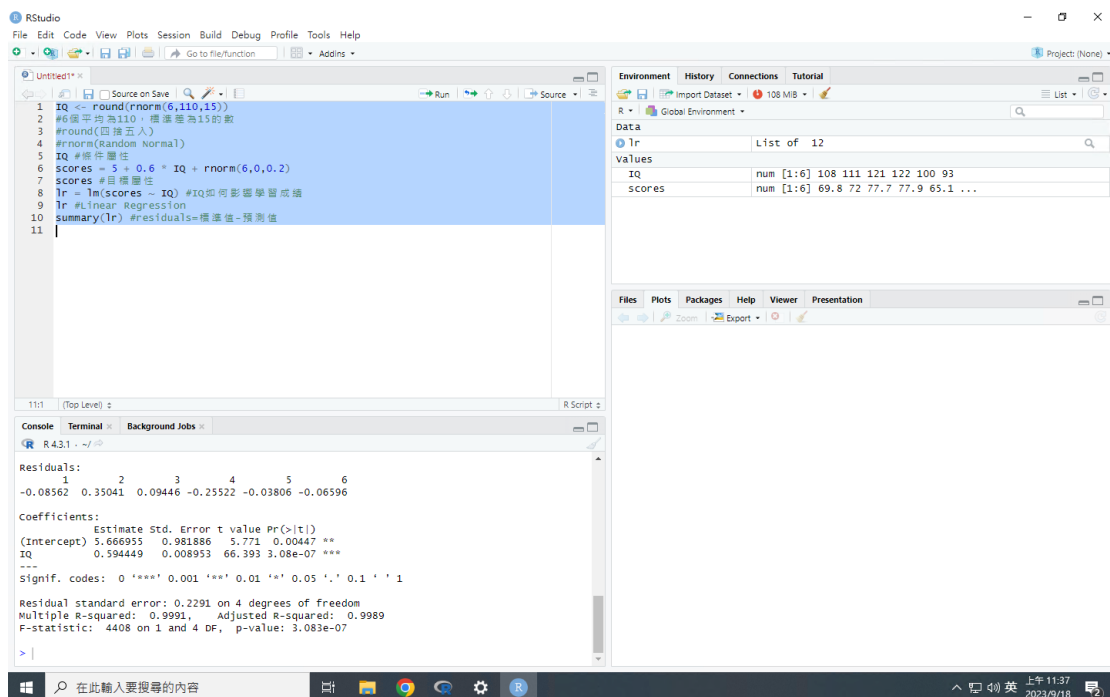
點開後按 ok



完成



試跑看看



試繪圖

RStudio

File Edit Code View Plots Session Build Debug Profile Tools Help

Source Untitled1.R

```
1 #產生 100 組，每組樣本數 500 且符合N(0,1) 的分布，並畫出 100 個併排的直方圖
2
3 oldpar=par() #儲存目前的繪圖參數
4 par(mfrow=c(10,10),mai=c(0.1,0.1,0.1,0.1))#mai設定繪圖預留邊界 c(bottom, left, top, right)
5
6
7 for (i in 1:100) hist(rnorm(500,0,1),main="results")#main為設定直方圖的標題
8
9 par(oldpar)
```

Environment History Connections Tutorial

R Global Environment

Data

Tr	List of 12
oldpar	List of 72

Values

i	100L
IQ	num [1:6] 108 111 121 122 100 93
scores	num [1:6] 69.8 72 77.7 77.9 65.1 ...

Files Plots Packages Help Viewer Presentation

11:1 (Top Level) R Script

Console Terminal Background Jobs

```
> # 產生 100 組，每組樣本數 500 且符合N(0,1) 的分布，並畫出 100 個併排的直方圖
>
> oldpar=par() #儲存目前的繪圖參數
>
> par(mfrow=c(10,10),mai=c(0.1,0.1,0.1,0.1))#mai設定繪圖預留邊界 c(bottom, left, top, right)
>
> for (i in 1:100) hist(rnorm(500,0,1),main="Results")#main為設定直方圖的標題
>
> par(oldpar)
warning messages:
1: In par(oldpar) : 無法設定繪圖參數 "cin"
2: In par(oldpar) : 無法設定繪圖參數 "cra"
3: In par(oldpar) : 無法設定繪圖參數 "csi"
4: In par(oldpar) : 無法設定繪圖參數 "csy"
5: In par(oldpar) : 無法設定繪圖參數 "din"
6: In par(oldpar) : 無法設定繪圖參數 "page"
> |
```

在此輸入要搜尋的內容

上午 11:40 2023/9/18