2020/11/20(五), 109 學年第一學期 資料科學應用 R 小考(1)

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#(請依照規定)貼上執行程式碼及執行結果。

詳見: R 程式作業繳交方式

http://www.hmwu.idv.tw/web/teaching/doc/R-how-homework.pdf

> library(readxl)

> # 1(a)

> my.data <- read.csv("Calculus-score-A.csv", header = TRUE, skip = 1)

> xlsx_file <- "Calculus-score-B.xls"

> excel_sheets(xlsx_file)

[1] "工作表 1"

> my.data1 <- read_excel(xlsx_file, sheet = "工作表 1", na = "NA", skip = 1)

New names:

- * `` -> ...1
- * `` -> ...2
- * `` -> ...3
- * `` -> ...4

> my.data[c(1:5, 38:42),]

| | Х | X.1 | X.2 | X.3 quiz. | 1. quiz.2. d | quiz.3. qui | z.4. TA | Midterr | mExam |
|----|--------|--------|-----|-----------|--------------|-------------|---------|---------|-------|
| 1 | 座號 | 學號 | 姓名 | 性別 | 7% | 7% | 8% | 8% | 15% |
| 25 | % | | | | | | | | |
| 2 | 1 401 | 405008 | 希瑄彥 | 男 | 10 | 0 | 5 | 20 | 0 |
| 55 | | | | | | | | | |
| 3 | 2 401 | 550880 | 張泓丞 | 男 | 25 | 40 | 70 | 87 | 80 |
| 46 | | | | | | | | | |
| 4 | 3 404 | 550061 | 張安婕 | 女 | 18 | 15 | 48 | 33 86 | 5.7 |
| 54 | | | | | | | | | |
| 5 | 4 404 | 550042 | 柯政學 | 男 | 10 | 10 | | 1 | 3.3 |
| 2 | | | | | | | | | |
| 38 | 37 404 | 550420 | 何瑄穎 | 男 | 28 | 10 | 35 | 3 6 | 5.7 |
| 30 | | | | | | | | | |
| 39 | 38 404 | 550431 | 沈泓霏 | 女 | 15 | 25 | 53 | 67 93 | 3.3 |
| 29 | | | | | | | | | |
| 40 | 39 404 | 550442 | 許安霏 | 女 | 53 | 60 | 80 | 72 | 100 |
| 61 | | | | | | | | | |
| 41 | 40 404 | 550453 | 李政宜 | 男 | 80 | 100 | 85 | 100 | 100 |

| 95 | | | | | | | | |
|---|---|--|--------------|---|--------|--------|-----------|---------------------|
| NA | <na> <n< td=""><td>A> <na< td=""><td>\> <na></na></td><td><n< td=""><td>A> <</td><td>NA></td><td><na></na></td><td><na> <na></na></na></td></n<></td></na<></td></n<></na> | A> <na< td=""><td>\> <na></na></td><td><n< td=""><td>A> <</td><td>NA></td><td><na></na></td><td><na> <na></na></na></td></n<></td></na<> | \> <na></na> | <n< td=""><td>A> <</td><td>NA></td><td><na></na></td><td><na> <na></na></na></td></n<> | A> < | NA> | <na></na> | <na> <na></na></na> |
| <na></na> | | | | | | | | |
| FinalExam Attendance | | | | | | | | |
| 1 | 30% | Times | | | | | | |
| 2 | 50 | 2 | | | | | | |
| 3 | 68 | 9 | | | | | | |
| 4 | 79 | 9 | | | | | | |
| 5 | 0 | 7 | | | | | | |
| 38 | 0 | 7 | | | | | | |
| 39 | 42 | 9 | | | | | | |
| 40 | 62 | 9 | | | | | | |
| 41 | 100 | 3 | | | | | | |
| NA | <na></na> | <na></na> | > | | | | | |
| > as.data.frame(head(my.data1, 5)) | | | | | | | | |
| 1234 quiz(1) quiz(2) quiz(3) quiz(4) TA MidtermExam | | | | | | | | |
| 1 厘 | 医號 學號 | 姓名 | 性別 | 0.07 | 0.07 | 0.08 | 0.08 | 0.15 |
| 0.2 | 5 | | | | | | | |
| 2 | 1 404550465 | 史文羽 | 男 | 60.00 | 81.00 | 100.00 | 97.00 2 | 100.00 |
| 90.0 | 00 | | | | | | | |
| 3 | 2 404685071 | 鄭樺妤 | 男 | 80.00 | 100.00 | 100.00 | 92.00 | 100.00 |
| 92.0 | 00 | | | | | | | |
| 4 | 3 404685084 | 張敬安 | 男 | 10.00 | 40.00 | 62.00 | 93.00 1 | 100.00 |
| 65.0 | 00 | | | | | | | |
| 5 | 4 404685099 | 何筑亦 | 女 | 15.00 | 25.00 | 40.00 | 13.00 | 93.30 |
| 36.0 | 00 | | | | | | | |
| FinalExam Attendance | | | | | | | | |
| 1 | 0.3 | Times | | | | | | |
| 2 | 83.0 | 6 | | | | | | |
| 3 | 97.0 | 2 | | | | | | |
| 4 | 84.0 | 9 | | | | | | |
| 5 | 5.0 | 9 | | | | | | |
| > as.data.frame(tail(my.data1, 5)) | | | | | | | | |
| 1234 quiz(1) quiz(2) quiz(3) quiz(4) TA MidtermExam | | | | | | | | |
| FinalExam | | | | | | | | |
| 1 | 51 404685407 | 鄭鈺尤 | 女 | 80 | 85 | 10 | 0 8 | 5 100 |
| 89 | 95 | | | | | | | |
| 2 | 52 404685905 | 楊宜路 | 男 | 48 | 35 | 4 | 8 9 | 8 100 |

```
50
           62
3
    53 404685013 張渝好
                             男
                                        0
                                                38
                                                          60
                                                                   40 87
49
           25
4
    54 404685119 廖暄安
                             男
                                                70
                                                                   85 100
                                       50
                                                          20
54
           69
    55 499555916 楊毅亦
                             女
5
                                        5
                                                35
                                                          45
                                                                   55 87
58
           60
  Attendance
1
2
            9
3
            1
4
            4
5
            3
> # 1(b)
>
> # 1(c)
> # 1(d)
>
> # 1(e)
>
> # 1(f)
>
> # 1(g)
>
> # 2(a)
> set.seed <- c(123456)
> Letters.code <- c(sample(LETTERS[1:5], 20, replace=T))
> set.seed <- c("A", "B", "C", "D", "E" )
> Letters.code <- c("1", "3", "2", "3", "1" )
> sat.f <- factor(set.seed )</pre>
> levels(sat.f) <- c("1", "3", "2", "3", "1")
> sat.f
[1] 1 3 2 3 1
Levels: 132
> # 2(b)
>
```