2020/12/25(五), 109學年第一學期 資料科學應用 R作業(7)

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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

> #2.30(a)

> first5.records <- read.table("data/answer.txt", header = TRUE, sep="\t")

> head(first5.records, 5)

Student V1 V2 V3 V4 V5 V6 V7 V8 V9 V10

1 s1 C D D A D A B C C B

2 s2 B D B D D A C D B B

3 s3 B A A B D A C B C B

4 s4 B D B A B C C D C B

5 s5 B D D D A C C D A B

> #first5.records

> #str(first5.records)

>

> #2.30(b)

> correct <- c("B", "D", "B", "D", "D", "A", "C", "D", "C", "B")

> student.ans <- c("A", "D", "B", "D", "B", "A", "B", "D", "C", "B")

> #factor(correct)

> #factor(student.ans)

>

> correct.item <- which(factor(correct) == factor(student.ans))

> correct.item

[1] 2 3 4 6 8 9 10

> n.correct <- length(correct.item) \* 10

> n.correct

[1] 70

>

> #2.30(c)

> #names(first5.records)

> #first5.records[,c("V1","V2","V3","V4","V5","V6","V7","V8","V9","V10")]

> n.correct.f <- function(x){

+ length(which(factor(correct) == x))\*10

+ }

> #correct.first5.records <- apply(first5.records[,c("V1","V2","V3","V4","V5","V6","V7","V8","V9","V10")], 1,n.correct.f)

> #correct.first5.records

> #str(correct.first5.records)

> score.table <- table(apply(first5.records[,c("V1","V2","V3","V4","V5","V6","V7","V8","V9","V10")], 1, n.correct.f))

> score.table

0 10 20 30 40 50 60 70 80 90 100

3 10 9 11 19 23 28 40 30 12 7

>

>

> #2.30(d)

>

> #2.30(e)

>

> #2.30(f)

>

>

>

> #2.51(a)

> c("AAABBBCCCC")

[1] "AAABBBCCCC"

>

> #2.51(b)

>

> #2.52

>

> #5.2(a)

>

> #5.2(b)

>