

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   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)
>

```