应统二班　　22020040149　　王振宽

```
      date age gender
1 20201101  25      1
2 20210601  68      2
3 20200801  32      1
4 20221001  36      1
5 20200201  70      2
  id     date age gender
1  a 20201101  25      1
2  b 20210601  68      2
3  c 20200801  32      1
4  d 20221001  36      1
5  e 20200201  70      2
  id     date age gender
1  a 20201101  25      1
3  c 20200801  32      1
4  d 20221001  36      1
  id     date age gender group
1  a 20201101  25      1 young
2  b 20210601  68      2   old
3  c 20200801  32      1 young
4  d 20221001  36      1 young
5  e 20200201  70      2   old
  id     date age gender
1  a 20201101  25 female
2  b 20210601  68   male
3  c 20200801  32 female
4  d 20221001  36 female
5  e 20200201  70   male
[1] "female" "male"   "female" "female" "male"
  id       date age gender
1  a 2020-11-01  25      1
2  b 2021-06-01  68      2
3  c 2020-08-01  32      1
4  d 2022-10-01  36      1
5  e 2020-02-01  70      2
  id       date age gender
1  e 2020-02-01  70      2
2  c 2020-08-01  32      1
3  a 2020-11-01  25      1
4  b 2021-06-01  68      2
5  d 2022-10-01  36      1
 [1] 28 33 35 36 37 50 56 69 77 79 92 98
 [1]  9  7 12  8  3  5 10  2  1  4 11  6
```

```
[1] 79
[1] 7
```

源代码如下：（R+VSCode）

```
sink("./23.R-Project/output.doc", append = TRUE, split = TRUE)
mytxt <- "
date age gender
20201101 25 1
20210601 68 2
20200801 32 1
20221001 36 1
20200201 70 2
"
date <- c("20201101", "20210601", "20200801", "20221001", "20200201")
age <- c(25, 68, 32, 36, 70)
gender <- c(1, 2, 1, 1, 2)
data_1 <- data.frame(date, age, gender)
print(data_1)

id <- c("a", "b", "c", "d", "e")
data_2 <- data.frame(id, data_1)
print(data_2)

data_3 <- subset(data_2, age < 65, select <- c("id", "date", "age",
"gender"))
print(data_3)

data_4 <- data_2
data_4$group[data_2$age < 65] <- "young"
data_4$group[data_2$age > 65] <- "old"
print(data_4)

data_5 <- data_2
data_5$gender[data_2$gender == 1] <- "female"
data_5$gender[data_2$gender == 2] <- "male"
print(data_5)

print(data_5$gender)

data_date <- as.Date(data_2$date, "%Y%m%d")
data_2$date <- data_date
data_7 <- data.frame(data_2)
print(data_7)
```

```
sort_date <- data_date[order(data_date)]
sort_age <- age[order(data_date)]
sort_gender <- gender[order(data_date)]
sort_id <- id[order(data_date)]
date <- sort_date
age <- sort_age
gender <- sort_gender
id <- sort_id
data_8 <- data.frame(id, date, age, gender)
print(data_8)

x <- c(77, 56, 98, 69, 35, 37, 79, 33, 28, 36, 92, 50)
print(sort(x))
print(rank(x))
print(x[rank(x) == 10])
a <- x[rank(x) == 10]
print(order(x)[sort(x) == a])
sink()
```