

Worksheet-2 in R

2023-10-07

```
seqA <- -5:5  
seqA
```

```
## [1] -5 -4 -3 -2 -1 0 1 2 3 4 5
```

```
x <- 1:7  
x
```

```
## [1] 1 2 3 4 5 6 7
```

```
vecseq <- seq(1, 3, by=0.2)  
vecseq
```

```
## [1] 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0
```

```
Cencus <- c(34,28,22,36,27,18,52,39,42, 29, 35, 31, 27, 22, 37, 34, 19, 20, 57, 49, 50, 37, 46, 25, 17,
```

```
Cen3rd <- Cencus[3]  
Cen3rd
```

```
## [1] 22
```

```
Cencus[c(2, 4)]
```

```
## [1] 28 36
```

```
Cencus
```

```
## [1] 34 28 22 36 27 18 52 39 42 29 35 31 27 22 37 34 19 20 57 49 50 37 46 25 17
```

```
## [26] 37 43 53 41 51 35 24 33 41 53 40 18 44 38 41 48 27 39 19 30 61 54 58 26 18
```

```
Not1 <- Cencus[-4]  
Not1
```

```
## [1] 34 28 22 27 18 52 39 42 29 35 31 27 22 37 34 19 20 57 49 50 37 46 25 17 37
```

```
## [26] 43 53 41 51 35 24 33 41 53 40 18 44 38 41 48 27 39 19 30 61 54 58 26 18
```

```
Not2 <- Cencus [-13]  
Not2
```

```
## [1] 34 28 22 36 27 18 52 39 42 29 35 31 22 37 34 19 20 57 49 50 37 46 25 17 37
```

```
## [26] 43 53 41 51 35 24 33 41 53 40 18 44 38 41 48 27 39 19 30 61 54 58 26 18
```

```
NotBoth <- c(Not1, Not2)  
NotBoth
```

```
## [1] 34 28 22 27 18 52 39 42 29 35 31 27 22 37 34 19 20 57 49 50 37 46 25 17 37
```

```
## [26] 43 53 41 51 35 24 33 41 53 40 18 44 38 41 48 27 39 19 30 61 54 58 26 18 34
```

```
## [51] 28 22 36 27 18 52 39 42 29 35 31 22 37 34 19 20 57 49 50 37 46 25 17 37 43
```

```
## [76] 53 41 51 35 24 33 41 53 40 18 44 38 41 48 27 39 19 30 61 54 58 26 18
```

```
x <- c("first"=3, "second"=0, "third"=9)  
names(x)
```

```
## [1] "first" "second" "third"
x [c ("first", "third")]

## first third
##      3      9
x <- -3:2
x[2] <- 0
x

## [1] -3  0 -1  0  1  2
month <- c("Jan", "Feb", "March", "Apr", "May", "June")
price_per_liter <- c(52.50, 57.25, 60.00, 65.00, 74.25, 54.00)
purchase_quantity <- c(25, 30, 40, 50, 10, 45)

df <- data.frame(Month = month, Price_Per_Liter = price_per_liter, Purchase_Quantity = purchase_quantity)
df

##   Month Price_Per_Liter Purchase_Quantity
## 1   Jan           52.50                25
## 2   Feb           57.25                30
## 3 March           60.00                40
## 4   Apr           65.00                50
## 5   May           74.25                10
## 6  June           54.00                45

avgfuelexp <- weighted.mean(price_per_liter, purchase_quantity)
avgfuelexp

## [1] 59.2625

rivers

##   [1] 735 320 325 392 524 450 1459 135 465 600 330 336 280 315 870
##  [16] 906 202 329 290 1000 600 505 1450 840 1243 890 350 407 286 280
##  [31] 525 720 390 250 327 230 265 850 210 630 260 230 360 730 600
##  [46] 306 390 420 291 710 340 217 281 352 259 250 470 680 570 350
##  [61] 300 560 900 625 332 2348 1171 3710 2315 2533 780 280 410 460 260
##  [76] 255 431 350 760 618 338 981 1306 500 696 605 250 411 1054 735
##  [91] 233 435 490 310 460 383 375 1270 545 445 1885 380 300 380 377
## [106] 425 276 210 800 420 350 360 538 1100 1205 314 237 610 360 540
## [121] 1038 424 310 300 444 301 268 620 215 652 900 525 246 360 529
## [136] 500 720 270 430 671 1770

rivers <- rivers [1:7]
rivers

## [1] 735 320 325 392 524 450 1459

data <- c(length(rivers), sum(rivers), mean(rivers), median(rivers), var(rivers),
          sd(rivers), min(rivers), max(rivers))
data

## [1]      7.0000    4205.0000    600.7143    450.0000 163611.2381    404.4889
## [7]    320.0000    1459.0000

CelebData <- data.frame (
  PowerRanking = c(1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25),
  CelebrityName = c("Tom Cruise" , "Rolling Stones", "Oprah Winfrey", "U2", "Tiger Woods", "Steven Spielberg")
)
```

```
Pay = c(67, 90, 225, 110, 90, 332, 302, 41, 52, 88, 55, 44, 55, 40, 233, 34, 40, 47, 75, 25, 39, 45, 31)
)
CelebData
```

```
##      PowerRanking      CelebrityName Pay
## 1           1      Tom Cruise  67
## 2           2    Rolling Stones  90
## 3           3    Oprah Winfrey 225
## 4           4              U2 110
## 5           5      Tiger Woods  90
## 6           6    Steven Spielberg 332
## 7           7    Howard Stern 302
## 8           8       50 Cent  41
## 9           9 Cast of the Sopranos 52
## 10          10      Dan Brown  88
## 11          11    Bruce Springsteen 55
## 12          12    Donald Trump  44
## 13          13    Muhammad Ali  55
## 14          14    Paul McCartney 40
## 15          15    George Lucas 233
## 16          16    Elton John  34
## 17          17    David Letterman 40
## 18          18    Phil Mickelson 47
## 19          19    J.K Rowling  75
## 20          20    Bradd Pitt  25
## 21          21    Peter Jackson 39
## 22          22    Dr. Phil McGraw 45
## 23          23      Jay Lenon  32
## 24          24    Celine Dion  40
## 25          25    Kobe Bryant  31
```

```
RepNew <- replace(CelebData$PowerRanking, 19, 15)
PayNew <- replace(CelebData$Pay, 19, 90)
```

```
NewCelebData <- data.frame (
  PowerRanking = RepNew, CelebData$CelebrityName, Pay = PayNew)
NewCelebData
```

```
##      PowerRanking CelebData.CelebrityName Pay
## 1           1      Tom Cruise  67
## 2           2    Rolling Stones  90
## 3           3    Oprah Winfrey 225
## 4           4              U2 110
## 5           5      Tiger Woods  90
## 6           6    Steven Spielberg 332
## 7           7    Howard Stern 302
## 8           8       50 Cent  41
## 9           9    Cast of the Sopranos 52
## 10          10      Dan Brown  88
## 11          11    Bruce Springsteen 55
## 12          12    Donald Trump  44
## 13          13    Muhammad Ali  55
## 14          14    Paul McCartney 40
## 15          15    George Lucas 233
## 16          16    Elton John  34
```

```
## 17      17      David Letterman 40
## 18      18      Phil Mickelson 47
## 19      15      J.K Rowling    90
## 20      20      Bradd Pitt    25
## 21      21      Peter Jackson 39
## 22      22      Dr. Phil McGraw 45
## 23      23      Jay Lenon    32
## 24      24      Celine Dion   40
## 25      25      Kobe Bryant   31
```

```
install.packages("writexl")
```

```
## Installing package into '/cloud/lib/x86_64-pc-linux-gnu-library/4.3'
## (as 'lib' is unspecified)
```

```
library(writexl)
write_xlsx(CelebData, path = "PowerRanking.xlsx")
write_csv(CelebData, file = "PowerRanking.csv", row.names = FALSE)
```

```
TntoTwnty <-CelebData[10:20, ]
save(TntoTwnty, file = "Ranks.RData")
TntoTwnty
```

```
##      PowerRanking      CelebrityName Pay
## 10      10      Dan Brown    88
## 11      11 Bruce Springsteen 55
## 12      12      Donald Trump 44
## 13      13      Muhammad Ali 55
## 14      14      Paul McCartney 40
## 15      15      George Lucas 233
## 16      16      Elton John   34
## 17      17      David Letterman 40
## 18      18      Phil Mickelson 47
## 19      19      J.K Rowling   75
## 20      20      Bradd Pitt    25
```

```
Veggies <- c("Tomato","Carrot","Potatoes","Cucumber","Eggplant","Bell Pepper","Squash","Cabbage","Radish")
Veggies
```

```
## [1] "Tomato"      "Carrot"      "Potatoes"    "Cucumber"    "Eggplant"
## [6] "Bell Pepper" "Squash"      "Cabbage"     "Radish"      "Mushroom"
```

```
AddVeg<- c("Kangkong","Ampalaya")
LastVeg<-c(Veggies, AddVeg)
LastVeg
```

```
## [1] "Tomato"      "Carrot"      "Potatoes"    "Cucumber"    "Eggplant"
## [6] "Bell Pepper" "Squash"      "Cabbage"     "Radish"      "Mushroom"
## [11] "Kangkong"    "Ampalaya"
```

```
FourVeg<- c("Artichoke", "Beet", "Broccolli", "Sitaw")
UpdateVeg <- c(LastVeg[1:5], FourVeg, LastVeg[6:length(LastVeg)])
UpdateVeg
```

```
## [1] "Tomato"      "Carrot"      "Potatoes"    "Cucumber"    "Eggplant"
## [6] "Artichoke"   "Beet"        "Broccolli"   "Sitaw"       "Bell Pepper"
## [11] "Squash"      "Cabbage"     "Radish"      "Mushroom"    "Kangkong"
## [16] "Ampalaya"
```

```
length(UpdateVeg)
```

```
## [1] 16
```

```
Bye<- c(5, 10, 15)
```

```
Final<-UpdateVeg[-Bye]
```

```
Final
```

```
## [1] "Tomato" "Carrot" "Potatoes" "Cucumber" "Artichoke" "Beet"
```

```
## [7] "Broccoli" "Sitaw" "Squash" "Cabbage" "Radish" "Mushroom"
```

```
## [13] "Ampalaya"
```

```
length(Final)
```

```
## [1] 13
```