Week3ClassWork

Peyton Hall

2024-01-25

Week 02 Work

Take the summary statistic of mtcars dataset.

```
summary(mtcars)
```

```
##       mpg             cyl             disp             hp       
##  Min.   :10.40   Min.   :4.000   Min.   : 71.1   Min.   : 52.0  
##  1st Qu.:15.43   1st Qu.:4.000   1st Qu.:120.8   1st Qu.: 96.5  
##  Median :19.20   Median :6.000   Median :196.3   Median :123.0  
##  Mean   :20.09   Mean   :6.188   Mean   :230.7   Mean   :146.7  
##  3rd Qu.:22.80   3rd Qu.:8.000   3rd Qu.:326.0   3rd Qu.:180.0  
##  Max.   :33.90   Max.   :8.000   Max.   :472.0   Max.   :335.0  
##       drat             wt             qsec             vs        
##  Min.   :2.760   Min.   :1.513   Min.   :14.50   Min.   :0.0000  
##  1st Qu.:3.080   1st Qu.:2.581   1st Qu.:16.89   1st Qu.:0.0000  
##  Median :3.695   Median :3.325   Median :17.71   Median :0.0000  
##  Mean   :3.597   Mean   :3.217   Mean   :17.85   Mean   :0.4375  
##  3rd Qu.:3.920   3rd Qu.:3.610   3rd Qu.:18.90   3rd Qu.:1.0000  
##  Max.   :4.930   Max.   :5.424   Max.   :22.90   Max.   :1.0000  
##        am              gear            carb      
##  Min.   :0.0000   Min.   :3.000   Min.   :1.000  
##  1st Qu.:0.0000   1st Qu.:3.000   1st Qu.:2.000  
##  Median :0.0000   Median :4.000   Median :2.000  
##  Mean   :0.4062   Mean   :3.688   Mean   :2.812  
##  3rd Qu.:1.0000   3rd Qu.:4.000   3rd Qu.:4.000  
##  Max.   :1.0000   Max.   :5.000   Max.   :8.000
```

Create a dataframe named “patient”

```
# Create the data frame
patient <- data.frame(
  Patient_ID = c(1, 2, 3),
  Temperature = c(98, 97.9, 99.1),
  Oxygen = c(90, 99, 93),
  SBP = c(123, 115, 107)
)
# Print the data frame
patient
```

```
##   Patient_ID Temperature Oxygen SBP
## 1          1        98.0     90 123
## 2          2        97.9     99 115
## 3          3        99.1     93 107
```

```
# find mean min and max
mean(patient$Oxygen)
```

```
## [1] 94
```

```
min(patient$SBP)
```

```
## [1] 107
```

```
max(patient$SBP)
```

```
## [1] 123
```

Read files

```
scores <- read.csv("~/Desktop/Data211/Week 3/reading scores.csv")
```

```
# select the .csv file from folder -> option -> command + c
student_Data <- read.csv("~/Desktop/Data211/Week 3/student data.csv")
student_Data
```

```
##    Name     Course Grade lettergrades
## 1   Pam Statistics    78           C+
## 2 Henry   Calculus    82           B-
## 3  Emma    Algebra    91           A-
## 4 Jenny Psychology    87           B+
```

```
mean(student_Data$Grade)
```

```
## [1] 84.5
```

Writing files

```
Test_Score<-data.frame(Student=c("Jack", "Mike", "Mary"), Midterm=c(89,76,90), Final=c (91, 72, 92))

write.csv(Test_Score,file = "~/Desktop/Data211/Week 3/WriteScores.csv")
write.csv(Test_Score,file = "WriteScores.csv")
```

Reading Excel

```r
# environment -> Import Dataset -> From Excel... -> Browse ->
# Navigate to desktop -> Code Preview: -> copy & paste
library(readxl)
student_data <- read_excel("~/Desktop/Data211/Week 3/student data.xlsx")
# View(student_data)

student_ID <- read_excel("~/Desktop/Data211/Week 3/student data.xlsx", sheet = 2)
```

Introducing Functions

```r
Addition<-function(x,y){
  sum<-x+y
  return(sum)
}

Addition(2,5)
```

```
## [1] 7
```

```r
a<-function(x) {
  percent=round(x*100, digits = 1)
  result=paste(percent,"%")
  return(result)
}

a(0.3368)
```

```
## [1] "33.7 %"
```

```r
input<-20
mysum<-function(input1, input2=10) {
  output<-input1+input2
  return(output)
}
```