# Worksheet3b_Cartoja

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#1. Create a data frame using the table below. #a. Write the codes.

```
Respondents <- c(seq(1,20))
Sex <- c(2,2,1,2,2,2,2,2,2,2,1,2,2,2,2,2,2,2,1,2)
FathersOccupation <- c(1,3,3,3,1,2,3,1,1,1,3,2,1,3,3,1,3,1,2,1)
Personsathome <- c(5,7,3,8,5,9,6,7,8,4,7,5,4,7,8,8,3,11,7,6)
Siblingsatschool <- c(6,4,4,1,2,1,5,3,1,2,3,2,5,5,2,1,2,5,3,2)
Typesofhouses <- c(1,2,3,1,1,3,3,1,2,3,2,3,2,2,3,3,3,3,3,2)

dataframe <- data.frame(Respondents,Sex,FathersOccupation,Personsathome,Siblingsatschool,Typesofhouses)
```

#b.Describe the data. Get the structure or the summary of the data

```
summary(dataframe)
```

```
##   Respondents         Sex       FathersOccupation Personsathome
##  Min.   : 1.00   Min.   :1.00   Min.   :1.00      Min.   : 3.0
##  1st Qu.: 5.75   1st Qu.:2.00   1st Qu.:1.00      1st Qu.: 5.0
##  Median :10.50   Median :2.00   Median :2.00      Median : 7.0
##  Mean   :10.50   Mean   :1.85   Mean   :1.95      Mean   : 6.4
##  3rd Qu.:15.25   3rd Qu.:2.00   3rd Qu.:3.00      3rd Qu.: 8.0
##  Max.   :20.00   Max.   :2.00   Max.   :3.00      Max.   :11.0
##  Siblingsatschool Typesofhouses
##  Min.   :1.00     Min.   :1.0
##  1st Qu.:2.00     1st Qu.:2.0
##  Median :2.50     Median :2.5
##  Mean   :2.95     Mean   :2.3
##  3rd Qu.:4.25     3rd Qu.:3.0
##  Max.   :6.00     Max.   :3.0
```

#c. Is the mean number of siblings attending is 5?

Ans: No

#d. Extract the 1st two rows and then all the columns using the subsetting functions. Write the codes and its output.

```
A1 <- subset(dataframe[1:2, 1:6, drop = FALSE])
A1
```

```
##   Respondents Sex FathersOccupation Personsathome Siblingsatschool
## 1           1   2                 1             5                6
## 2           2   2                 3             7                4
##   Typesofhouses
## 1             1
```

```
## 2             2
```

#e. Extract 3rd and 5th row with 2nd and 4th column. Write the codes and its #result.

```
A2 <- subset(dataframe[c(3,5),c(2,4)])
A2
```

```
##   Sex Personsathome
## 3   1             3
## 5   2             5
```

#f. Select the variable types of houses then store the vector that results as types_houses. Write the codes.

```
A3 <- subset(dataframe[c(1:20), c(2,6)])
type_houses <- A3
```

#g. Select only all Males respondent that their father occupation was farmer. Write the codes and its output.

```
A4 <- subset(dataframe[c(1:20), c(2,3)])
Males <- A4[dataframe$FathersOccupation == '1',]
Males
```

```
##    Sex FathersOccupation
## 1    2                 1
## 5    2                 1
## 8    2                 1
## 9    2                 1
## 10   2                 1
## 13   2                 1
## 16   2                 1
## 18   2                 1
## 20   2                 1
```

#h. Select only all females respondent that have greater than or equal to 5 number #of siblings attending school. Write the codes and its outputs

```
A5 <- subset(dataframe[c(1:20), c(2,5)])
females <- A5[dataframe$Siblingsatschool == '1',]
females
```

```
##    Sex Siblingsatschool
## 4    2                1
## 6    2                1
## 9    2                1
## 16   2                1
```

#2. Write a R program to create an empty data frame. Using the following codes:

```
dataframe = data.frame(Integers=integer(),
                Doubles=double(),
                Characters=character(),
                Logicals=logical(),
                Factors=factor(),
                stringsAsFactors=FALSE)

          print("Structure of the empty dataframe:")
```

```
## [1] "Structure of the empty dataframe:"
```

```
          print(str(dataframe))
```

```
## 'data.frame':    0 obs. of  5 variables:
##  $ Integers  : int
##  $ Doubles   : num
##  $ Characters: chr
##  $ Logicals  : logi
##  $ Factors   : Factor w/ 0 levels:
## NULL
```