

# RWorksheet 3b

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```
#Worksheet-3b in R
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```

```
#1.Create data frame using the table below.
```

```
#a. Write the codes.
```

```
Respondents <- c(1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20)
```

```
Sex <- c(2, 2, 1, 2, 2, 2, 2, 2, 2, 2, 1, 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)
```

```
fam_data <- data.frame(Respondents,Sex,FathersOccupation,PersonsatHome,Siblingsatschool,TypesofHouses)
```

```
fam_data
```

##	Respondents	Sex	FathersOccupation	PersonsatHome	Siblingsatschool
## 1	1	2	1	5	6
## 2	2	2	3	7	4
## 3	3	1	3	3	4
## 4	4	2	3	8	1
## 5	5	2	1	5	2
## 6	6	2	2	9	1
## 7	7	2	3	6	5
## 8	8	2	1	7	3
## 9	9	2	1	8	1
## 10	10	2	1	4	2
## 11	11	1	3	7	3
## 12	12	2	2	5	2
## 13	13	2	1	4	5
## 14	14	2	3	7	5
## 15	15	2	3	8	2
## 16	16	2	1	8	1
## 17	17	2	3	3	2
## 18	18	2	1	11	5
## 19	19	1	2	7	3
## 20	20	2	1	6	2
##	TypesofHouses				
## 1	1				
## 2	2				
## 3	3				
## 4	1				
## 5	1				

```
## 6          3
## 7          3
## 8          1
## 9          2
## 10         3
## 11         2
## 12         3
## 13         2
## 14         2
## 15         3
## 16         3
## 17         3
## 18         3
## 19         3
## 20         2
```

*#b. Describe the data. Get the structure or the summary of the data.*  
summary(fam\_data)

```
## 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?*  
mean\_siblings <- mean(Siblingsatschool)  
mean\_siblings

```
## [1] 2.95
```

*#answer: NO*

*#d. Extract the 1st two rows and then all the columns using the subsetting functions.  
#Write the codes and its output.*  
trows\_occup <- fam\_data\$FathersOccupation[1:2]  
trows\_occup

```
## [1] 1 3
```

```
trows_pers <- fam_data$PersonsatHome[1:2]  
trows_pers
```

```
## [1] 5 7
```

```
trow_respond <- fam_data$Respondents[1:2]  
trow_respond
```

```
## [1] 1 2
```

```
trows_sex <- fam_data$Sex[1:2]
trows_sex
```

```
## [1] 2 2
```

```
trows_sibl <- fam_data$Siblingsatschool[1:2]
trows_sibl
```

```
## [1] 6 4
```

```
trows_house <- fam_data$TypesofHouses[1:2]
trows_house
```

```
## [1] 1 2
```

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

```
trow_2ndcol <- fam_data$Sex[3:5]
trow_2ndcol
```

```
## [1] 1 2 2
```

```
trow_4thcol <- fam_data$PersonsatHome[3:5]
trow_4thcol
```

```
## [1] 3 8 5
```

*#f. Select the variable types of houses then store the vector that results as types\_houses. Write the codes and its result.*

```
types_houses <- fam_data$TypesofHouses[1:20]
types_houses
```

```
## [1] 1 2 3 1 1 3 3 1 2 3 2 3 2 2 3 3 3 3 2
```

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

```
male <- subset(fam_data[c(1:20),c(2,3)])
male
```

```
##      Sex FathersOccupation
## 1      2                1
## 2      2                3
## 3      1                3
## 4      2                3
## 5      2                1
## 6      2                2
## 7      2                3
## 8      2                1
## 9      2                1
## 10     2                1
## 11     1                3
## 12     2                2
## 13     2                1
## 14     2                3
## 15     2                3
## 16     2                1
## 17     2                3
## 18     2                1
## 19     1                2
## 20     2                1
```

```
farmer <- subset(fam_data, Sex == '1' & FathersOccupation == '1')
farmer
```

```
## [1] Respondents      Sex              FathersOccupation PersonsatHome
## [5] Siblingsatschool  TypesofHouses
## <0 rows> (or 0-length row.names)
```

```
malefar <- farmer[c(2,3)]
malefar
```

```
## [1] Sex              FathersOccupation
## <0 rows> (or 0-length row.names)
```

*#h. Select only all females respondent that have greater than or equal to 5 number of siblings attending*

```
female <- subset(fam_data[c(1:20),c(2,5)])
female
```

```
##      Sex Siblingsatschool
## 1      2                6
## 2      2                4
## 3      1                4
## 4      2                1
## 5      2                2
## 6      2                1
## 7      2                5
## 8      2                3
## 9      2                1
## 10     2                2
## 11     1                3
## 12     2                2
## 13     2                5
## 14     2                5
## 15     2                2
## 16     2                1
## 17     2                2
## 18     2                5
## 19     1                3
## 20     2                2
```

```
fem_resp <- subset(fam_data, Sex == '2' & Siblingsatschool >= 5)
fem_resp
```

```
##      Respondents Sex FathersOccupation PersonsatHome Siblingsatschool
## 1              1  2                1                5                6
## 7              7  2                3                6                5
## 13             13  2                1                4                5
## 14             14  2                3                7                5
## 18             18  2                1               11                5
##      TypesofHouses
## 1              1
## 7              3
## 13             2
## 14             2
## 18             3
```

```
fem_sib <- fem_resp[c(2,5)]
fem_sib
```

```
##      Sex Siblingsatschool
## 1      2                6
## 7      2                5
## 13     2                5
## 14     2                5
## 18     2                5
```

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

```
df = data.frame(Ints=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(df))
```

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

*#a. Describe the results.*

*#Answer: No data available in the table or in the data frame.*

*#3. Interpret the graph.*

*#The sentiments of tweets per day as days goes by the negative sentiments is high with the legend color*