## Worksheet 3b

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```
#1. Create a data frame using the table below.
# a.Write the codes.
Respondents <- c(1:20)
Sex <-c(2,2,1,2,2,2,2,2,2,1,2,2,2,2,2,2,2,1,2)
Fathers_Occupation \leftarrowc(1,3,3,3,1,2,3,1,1,1,3,2,1,3,3,1,3,1,2,1)
Persons_at_home <-c(5,7,3,8,5,9,6,7,8,4,7,5,4,7,8,8,3,11,7,6)
Siblings_at_school \leftarrow c(6,4,4,1,2,1,5,3,1,2,3,2,5,5,2,1,2,5,3,2)
data_frame <- data.frame(Respondents, Sex, Fathers_Occupation,Persons_at_home,</pre>
                     Siblings_at_school, Types_of_houses)
data_frame
##
      Respondents Sex Fathers_Occupation Persons_at_home Siblings_at_school
## 1
                1
                    2
                                                        5
                                       1
                                                        7
## 2
                2
                    2
                                       3
                                                                           4
## 3
                    1
                                        3
                                                        3
                3
                                                                           4
## 4
                4
                    2
                                        3
                                                        8
                                                                            1
## 5
                5
                    2
                                        1
                                                        5
                                                                           2
                    2
                                        2
                                                        9
## 6
                6
                                                                           1
                7
                    2
                                        3
                                                        6
                                                                           5
## 7
                    2
                                                        7
## 8
                                        1
                                                                           3
                8
## 9
                9
                    2
                                       1
                                                        8
                                                                           1
## 10
               10
                    2
                                        1
                                                        4
                                                                           2
                                       3
                                                        7
                                                                           3
## 11
               11
                    1
                    2
                                       2
## 12
               12
                                                        5
                                                                           2
## 13
               13
                    2
                                       1
                                                        4
                                                                           5
                                       3
                                                        7
## 14
               14
                    2
                                                                           5
               15
                    2
                                       3
                                                        8
                                                                           2
## 15
## 16
               16
                    2
                                       1
                                                        8
                                                                           1
## 17
               17
                    2
                                       3
                                                        3
                                                                           2
## 18
               18
                    2
                                       1
                                                       11
                                                                           5
                                                        7
               19
                                       2
                                                                           3
## 19
                    1
## 20
                                        1
                                                        6
                                                                           2
##
      Types_of_houses
## 1
## 2
                    2
## 3
                    3
## 4
                    1
## 5
                    1
                    3
## 6
```

## 7

```
## 8
                   1
## 9
                   2
## 10
                   3
                   2
## 11
## 12
                   3
## 13
                   2
## 14
                   2
## 15
                   3
## 16
                   3
## 17
                   3
## 18
                   3
                   3
## 19
                   2
## 20
#b.Describe the data. Get the structure or the summary of the data
summary(data_frame)
    Respondents
                        Sex
                                  Fathers_Occupation Persons_at_home
## Min. : 1.00
                  Min.
                          :1.00
                                 Min.
                                         :1.00
                                                     Min.
                                                           : 3.0
## 1st Qu.: 5.75
                   1st Qu.:2.00
                                                     1st Qu.: 5.0
                                 1st Qu.:1.00
## 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
          :20.00
                   Max. :2.00
                                 Max.
                                         :3.00
                                                     Max. :11.0
## Siblings_at_school Types_of_houses
## 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?
# No, the mean is 2.95
#d. Extract the 1st two rows and then all the columns using the subsetting functions.
#Write the codes and its output.
sub1 <- subset(data_frame[1:2, 1:6, drop = FALSE])</pre>
sub1
##
     Respondents Sex Fathers_Occupation Persons_at_home Siblings_at_school
## 1
               1
                                      1
               2
                                                      7
                                                                         4
## 2
                                      3
##
    Types_of_houses
## 1
                   1
## 2
                   2
#e. Extract 3rd and 5th row with 2nd and 4th column. Write the codes and its
\#result.
sub2 \leftarrow subset(data_frame[c(3,5),c(2,4)])
sub2
    Sex Persons_at_home
## 3
```

```
## 5 2
#f. Select the variable types of houses then store the vector that results as types_houses.
#Write the codes.
sub3 \leftarrow subset(data_frame[c(1:20), c(2,6)])
type_houses <- sub3</pre>
#g. Select only all Males respondent that their father occupation was farmer. Write
#the codes and its output.
sub4 \leftarrow subset(data_frame[c(3,11),c(2,3)])
sub4
##
      Sex Fathers_Occupation
## 3
## 11
                           3
#h. Select only all females respondent that have greater than or equal to 5 number of siblings attendin
sub5 \leftarrow subset(data frame[c(1:20), c(2,5)])
female_resp <- sub5[data_frame$Siblingsatschool >= 5,]
female_resp
## [1] Sex
                          Siblings_at_school
## <0 rows> (or 0-length row.names)
#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))
                    0 obs. of 5 variables:
## 'data.frame':
              : int
## $ Ints
## $ Doubles
              : num
## $ Characters: chr
## $ Logicals : logi
## $ Factors : Factor w/ 0 levels:
## NULL
#a. Describe the results.
#There is zero observations but has a 5 variables. It shows
#that ther is no data available in table.
#3. Interpret the graph.
#The data show that the counts of negative sentiments is the highest from July
#14 to 21,2020.
```