RWorksheet#3b

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```
 #1. Create a data frame using the table below.
#a.
library(dplyr)
```

```
##
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
##
##     filter, lag
```

```
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```
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)
Father_Occupation <- 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)
TypeOfHouses <- c (1,2,3,1,1,3,3,1,2,3,2,3,2,2,3,3,3,3,3,2)


data_display <- data.frame(Respondents, Sex,Father_Occupation,PersonsAtHome,SiblingsAtSchool,TypeOfHous
data_display
```

```
##    Respondents Sex Father_Occupation 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
##    TypeOfHouses
## 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
#in this dataset includes information from 20 respondents. It covers their gender, with 7 males and 13
summary(data_display)
```

```
##   Respondents          Sex       Father_Occupation 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  TypeOfHouses
##  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. No.

#d.
data1 <- subset (data_display)[1:2, 2:6, drop=FALSE]
data1
```

```
##   Sex Father_Occupation PersonsAtHome SiblingsAtSchool TypeOfHouses
## 1   2                 1             5                6            1
## 2   2                 3             7                4            2
```

```
#e.
data2 <- data_display[c(3,5), c(2,4)]
```

```
data2
```

```
##   Sex PersonsAtHome
## 3   1             3
## 5   2             5
```

```
#f.
types_houses <- data_display[c(6)]
types_houses
```

```
##    TypeOfHouses
## 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
```

```
#g.
selected_data <- data_display %>% select(1:6)
data3 <- selected_data[data_display$Sex == 1,]
data3
```

```
##    Respondents Sex Father_Occupation PersonsAtHome SiblingsAtSchool
## 3            3   1                 3             3                4
## 11          11   1                 3             7                3
## 19          19   1                 2             7                3
##    TypeOfHouses
## 3             3
## 11            2
## 19            3
```

```
#h.

female <- selected_data[data_display$SiblingsAtSchool >= 5,]
female
```

```
##    Respondents Sex Father_Occupation 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
```

```
##    TypeOfHouses
## 1             1
## 7             3
## 13            2
## 14            2
## 18            3
```

```
#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
```

```
#3. Create a .csv file of this. Save it as HouseholdData.csv
#a

RespondentsNew<-c(1,2,3,4,5,6,7,8,9,10)
SexNew<-c("Male", "Female", "Female", "Male", "Male", "Female", "Female", "Male", "Female", "Male")
FathersOccupationNew<-c(1,2,3,3,1,2,2,3,1,3)
PeAtHomeNew<-c(5,7,3,8,6,4,4,2,11,6)
SibAtSchoolNew<-c(2,3,0,5,2,3,1,2,6,2)
TypesofHousesNew<-c("Wood","Congrete","Congrete","Wood", "Semi-Congrete","Semi-Congrete","Wood","Semi-C
HouseholdData<-data.frame(
  RespondentsNew,
  SexNew,
  FathersOccupationNew,
  PeAtHomeNew,
  SibAtSchoolNew,
  TypesofHousesNew
)
HouseholdData
```

```
##    RespondentsNew SexNew FathersOccupationNew PeAtHomeNew SibAtSchoolNew
## 1               1   Male                    1           5              2
## 2               2 Female                    2           7              3
## 3               3 Female                    3           3              0
## 4               4   Male                    3           8              5
## 5               5   Male                    1           6              2
## 6               6 Female                    2           4              3
## 7               7 Female                    2           4              1
## 8               8   Male                    3           2              2
## 9               9 Female                    1          11              6
```

```
## 10             10   Male                    3           6              2
##    TypesofHousesNew
## 1              Wood
## 2          Congrete
## 3          Congrete
## 4              Wood
## 5     Semi-Congrete
## 6     Semi-Congrete
## 7              Wood
## 8     Semi-Congrete
## 9     Semi-Congrete
## 10         Congrete
```

```r
library(readr)
csv_file <- "HouseholdData.csv"
write.csv(HouseholdData, file = csv_file)
HouseholdData <- read.csv("HouseholdData.csv")
#4
#b
data_display1 <- factor(HouseholdData$SexNew, levels = c("Male" = 1, "Female" = 2))
sex_mapping <- c("Male" = 1, "Female" = 2)
data_display1<-as.integer(sex_mapping[HouseholdData$SexNew])
unique(data_display1)
```

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

```r
unique(HouseholdData$SexNew)
```

```
## [1] "Male"   "Female"
```

```r
#c.
data_display2 <- factor(HouseholdData$TypesofHousesNew, levels = c("Wood" = 1, "Congrete" = 2,"Semi-Cong
sex_mapping2 <- c("Wood" = 1, "Congrete" = 2,"Semi-Congrete" = 3)
data_display2 <- as.integer(sex_mapping2[HouseholdData$TypesofHousesNew])
unique(data_display2)
```

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

```r
unique(HouseholdData$TypesofHousesNew)
```

```
## [1] "Wood"          "Congrete"      "Semi-Congrete"
```

```r
#d.
data_display3 <- factor(HouseholdData$FathersOccupationNew, labels=c("Farmer" = 1, "Driver" = 2,"Others
sex_mapping3 <- c("Farmer" = 1, "Driver" = 2,"Others" = 3)
data_display3 <- as.integer(sex_mapping3[HouseholdData$FathersOccupationNew])
unique(data_display3)
```

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

```r
unique(HouseholdData$FathersOccupationNew)
```

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

```r
#e.
selected_data3 <- HouseholdData %>% select(2, 3,4)
data4 <- selected_data3[HouseholdData$FathersOccupationNew == 2, ]
data4
```

```
##   RespondentsNew SexNew FathersOccupationNew
## 2              2 Female                    2
## 6              6 Female                    2
## 7              7 Female                    2
```

```
#f.
selected_data3 <- HouseholdData %>% select(2,6)
data4 <- selected_data3[HouseholdData$SibAtSchoolNew >= 5,]
data4
```

```
##   RespondentsNew SibAtSchoolNew
## 4              4              5
## 9              9              6
```

```
colnames(HouseholdData) <- c("Respondents", "Sex", "Fathers Occupation", "Persons At Home", "Siblings A

#4. Interpret the Graph. This bar graph, titled "Sentiment of Tweets per Day," provides a brief overvie

#Negative Sentiment:
# Negative tweets, which express disapproval or criticism, saw notable increases on specific days like

#Neutral Sentiment:
# The neuimpartial and factual tone. Throughout July 2020, neutral sentiments were predominant, especia

#Positive Sentiment:
# Tweets falling into the positive sentiment category are characterized by their upbeat and enthusiasti

#In summary, the "Sentiment of Tweets per Day" bar graph offers insights into Twitter's emotional lands
```