Rworksheet_Holleza#3b.Rmd

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```
household<-data.frame(Respondents <- 1:20,
                      Sex <- c(2, 2, 1, 2, 2, 2, 2, 2, 2, 2, 1, 2, 2, 2, 2, 2, 2, 2, 1, 2),
                      Fathers.Occupation <- c(1, 3, 3, 3, 1, 2, 3, 1, 1, 1, 3, 2, 1, 3, 3, 1, 3, 1, 2, 
                      Persons.at.Home <- c(5, 7, 3, 8, 5, 9, 6, 7, 8, 4, 7, 5, 4, 7, 8, 8, 3, 11, 7, 6)
                      Siblngs.at.School <- c(6, 4, 4, 1, 2, 1, 5, 3, 1, 2, 3, 2, 5, 5, 2, 1, 2, 5, 3, 2
                      Types.of.Houses<- c(1, 2, 3, 1, 1, 3, 3, 1, 2, 3, 2, 3, 2, 2, 3, 3, 3, 3, 3, 2))
household
```

```
##    Respondents....1.20
## 1                    1
## 2                    2
## 3                    3
## 4                    4
## 5                    5
## 6                    6
## 7                    7
## 8                    8
## 9                    9
## 10                  10
## 11                  11
## 12                  12
## 13                  13
## 14                  14
## 15                  15
## 16                  16
## 17                  17
## 18                  18
## 19                  19
## 20                  20
##    Sex....c.2..2..1..2..2..2..2..2..2..2..1..2..2..2..2..2..2..2..
## 1                                                                 2
## 2                                                                 2
## 3                                                                 1
## 4                                                                 2
## 5                                                                 2
## 6                                                                 2
## 7                                                                 2
## 8                                                                 2
## 9                                                                 2
## 10                                                                2
## 11                                                                1
## 12                                                                2
## 13                                                                2
```

```
## 14                                                                  2
## 15                                                                  2
## 16                                                                  2
## 17                                                                  2
## 18                                                                  2
## 19                                                                  1
## 20                                                                  2
##    Fathers.Occupation....c.1..3..3..3..1..2..3..1..1..1..3..2..1..
## 1                                                                   1
## 2                                                                   3
## 3                                                                   3
## 4                                                                   3
## 5                                                                   1
## 6                                                                   2
## 7                                                                   3
## 8                                                                   1
## 9                                                                   1
## 10                                                                  1
## 11                                                                  3
## 12                                                                  2
## 13                                                                  1
## 14                                                                  3
## 15                                                                  3
## 16                                                                  1
## 17                                                                  3
## 18                                                                  1
## 19                                                                  2
## 20                                                                  1
##    Persons.at.Home....c.5..7..3..8..5..9..6..7..8..4..7..5..4..7..
## 1                                                                   5
## 2                                                                   7
## 3                                                                   3
## 4                                                                   8
## 5                                                                   5
## 6                                                                   9
## 7                                                                   6
## 8                                                                   7
## 9                                                                   8
## 10                                                                  4
## 11                                                                  7
## 12                                                                  5
## 13                                                                  4
## 14                                                                  7
## 15                                                                  8
## 16                                                                  8
## 17                                                                  3
## 18                                                                 11
## 19                                                                  7
## 20                                                                  6
##    Siblngs.at.School....c.6..4..4..1..2..1..5..3..1..2..3..2..5..
## 1                                                                  6
## 2                                                                  4
## 3                                                                  4
## 4                                                                  1
```

```
## 5                                                                    2
## 6                                                                    1
## 7                                                                    5
## 8                                                                    3
## 9                                                                    1
## 10                                                                   2
## 11                                                                   3
## 12                                                                   2
## 13                                                                   5
## 14                                                                   5
## 15                                                                   2
## 16                                                                   1
## 17                                                                   2
## 18                                                                   5
## 19                                                                   3
## 20                                                                   2
##    Types.of.Houses....c.1..2..3..1..1..3..3..1..2..3..2..3..2..2..
## 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
```

```
str(household)
```

```
## 'data.frame':    20 obs. of  6 variables:
##  $ Respondents....1.20                                          : int  1 2 3 4 5 6 7 8 9 10 ...
##  $ Sex....c.2..2..1..2..2..2..2..2..2..2..1..2..2..2..2..2..2..2..: num  2 2 1 2 2 2 2 2 2 2 ...
##  $ Fathers.Occupation....c.1..3..3..3..1..2..3..1..1..1..3..2..1..: num  1 3 3 3 1 2 3 1 1 1 ...
##  $ Persons.at.Home....c.5..7..3..8..5..9..6..7..8..4..7..5..4..7..: num  5 7 3 8 5 9 6 7 8 4 ...
##  $ Siblngs.at.School....c.6..4..4..1..2..1..5..3..1..2..3..2..5.. : num  6 4 4 1 2 1 5 3 1 2 ...
##  $ Types.of.Houses....c.1..2..3..1..1..3..3..1..2..3..2..3..2..2..: num  1 2 3 1 1 3 3 1 2 3 ...
```

```
summary(household)
```

```
##  Respondents....1.20
##  Min.   : 1.00
##  1st Qu.: 5.75
##  Median :10.50
##  Mean   :10.50
```

```
##  3rd Qu.:15.25
##  Max.   :20.00
##  Sex....c.2..2..1..2..2..2..2..2..2..2..1..2..2..2..2..2..2..2..
##  Min.   :1.00
##  1st Qu.:2.00
##  Median :2.00
##  Mean   :1.85
##  3rd Qu.:2.00
##  Max.   :2.00
##  Fathers.Occupation....c.1..3..3..3..1..2..3..1..1..1..3..2..1..
##  Min.   :1.00
##  1st Qu.:1.00
##  Median :2.00
##  Mean   :1.95
##  3rd Qu.:3.00
##  Max.   :3.00
##  Persons.at.Home....c.5..7..3..8..5..9..6..7..8..4..7..5..4..7..
##  Min.   : 3.0
##  1st Qu.: 5.0
##  Median : 7.0
##  Mean   : 6.4
##  3rd Qu.: 8.0
##  Max.   :11.0
##  Siblngs.at.School....c.6..4..4..1..2..1..5..3..1..2..3..2..5..
##  Min.   :1.00
##  1st Qu.:2.00
##  Median :2.50
##  Mean   :2.95
##  3rd Qu.:4.25
##  Max.   :6.00
##  Types.of.Houses....c.1..2..3..1..1..3..3..1..2..3..2..3..2..2..
##  Min.   :1.0
##  1st Qu.:2.0
##  Median :2.5
##  Mean   :2.3
##  3rd Qu.:3.0
##  Max.   :3.0
```

```
mean.sibling <- mean(household$Siblngs.at.School)
mean.sibling == 5
```

```
## [1] FALSE
```

```
ss1<-household[1:2,]
ss1
```

```
##   Respondents....1.20
## 1                  1
## 2                  2
##   Sex....c.2..2..1..2..2..2..2..2..2..2..1..2..2..2..2..2..2..2..
## 1                                                              2
## 2                                                              2
##   Fathers.Occupation....c.1..3..3..3..1..2..3..1..1..1..3..2..1..
## 1                                                              1
## 2                                                              3
##   Persons.at.Home....c.5..7..3..8..5..9..6..7..8..4..7..5..4..7..
```

```
## 1                                                                    5
## 2                                                                    7
##   Siblngs.at.School....c.6..4..4..1..2..1..5..3..1..2..3..2..5..
## 1                                                                  6
## 2                                                                  4
##   Types.of.Houses....c.1..2..3..1..1..3..3..1..2..3..2..3..2..2..
## 1                                                                    1
## 2                                                                    2
```

```
ss2<- household[c(3,5), c(2,4)]
ss2
```

```
##   Sex....c.2..2..1..2..2..2..2..2..2..2..1..2..2..2..2..2..2..2..
## 3                                                                    1
## 5                                                                    2
##   Persons.at.Home....c.5..7..3..8..5..9..6..7..8..4..7..5..4..7..
## 3                                                                    3
## 5                                                                    5
```

```
types_houses <- household$Types.of.Houses
types_houses
```

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

```
male.farmer <- subset(household, Sex == 1 & Fathers.Occupation == 1)
male.farmer
```

```
## [1] Respondents....1.20
## [2] Sex....c.2..2..1..2..2..2..2..2..2..2..1..2..2..2..2..2..2..2..
## [3] Fathers.Occupation....c.1..3..3..3..1..2..3..1..1..1..3..2..1..
## [4] Persons.at.Home....c.5..7..3..8..5..9..6..7..8..4..7..5..4..7..
## [5] Siblngs.at.School....c.6..4..4..1..2..1..5..3..1..2..3..2..5..
## [6] Types.of.Houses....c.1..2..3..1..1..3..3..1..2..3..2..3..2..2..
## <0 rows> (or 0-length row.names)
```

```
femalesiblings.respondents.greaterthan5<- subset (household, Sex == 2 & Siblngs.at.School == 5)
femalesiblings.respondents.greaterthan5
```

```
##    Respondents....1.20
## 7                   7
## 13                 13
## 14                 14
## 18                 18
##    Sex....c.2..2..1..2..2..2..2..2..2..2..1..2..2..2..2..2..2..2..
## 7                                                                    2
## 13                                                                   2
## 14                                                                   2
## 18                                                                   2
##    Fathers.Occupation....c.1..3..3..3..1..2..3..1..1..1..3..2..1..
## 7                                                                    3
## 13                                                                   1
## 14                                                                   3
## 18                                                                   1
##    Persons.at.Home....c.5..7..3..8..5..9..6..7..8..4..7..5..4..7..
## 7                                                                    6
## 13                                                                   4
## 14                                                                   7
```

```
## 18                                                                  11
##    Siblngs.at.School....c.6..4..4..1..2..1..5..3..1..2..3..2..5..
## 7                                                                    5
## 13                                                                   5
## 14                                                                   5
## 18                                                                   5
##    Types.of.Houses....c.1..2..3..1..1..3..3..1..2..3..2..3..2..2..
## 7                                                                    3
## 13                                                                   2
## 14                                                                   2
## 18                                                                   3
```

```
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
```

#2a. as the table show, the data frame has 0 observation and 5 variavbles. The factor column has nothiing to show since there are no values to define yet.

```
household.data <- data.frame(respondents <- 1:10,
                             sex<- c("Male", "Female", "Female", "Male", "Male", "Female", "Female",  "
                             Fathers_Occupation <- c(1, 2, 3, 3, 1, 2, 2, 3, 1, 3),
                             Persons_at_Home<- c(5,7,3,8,6,4,4,2,11,6),
                             Sibling_at_School <- c(2,3,0,5,2,3,1,2,6,2),
                             Types_of_Houses<- c("Wood", "Congrete", "Congrete", "Wood", "Semi-Congrete
household.data
```

```
##    respondents....1.10
## 1                    1
## 2                    2
## 3                    3
## 4                    4
## 5                    5
## 6                    6
## 7                    7
## 8                    8
## 9                    9
## 10                  10
##    sex....c..Male....Female....Female....Male....Male....Female...
## 1                                                             Male
## 2                                                           Female
## 3                                                           Female
```

```
## 4                                                                  Male
## 5                                                                  Male
## 6                                                                Female
## 7                                                                Female
## 8                                                                  Male
## 9                                                                Female
## 10                                                                 Male
##    Fathers_Occupation....c.1..2..3..3..1..2..2..3..1..3.
## 1                                                     1
## 2                                                     2
## 3                                                     3
## 4                                                     3
## 5                                                     1
## 6                                                     2
## 7                                                     2
## 8                                                     3
## 9                                                     1
## 10                                                    3
##    Persons_at_Home....c.5..7..3..8..6..4..4..2..11..6.
## 1                                                    5
## 2                                                    7
## 3                                                    3
## 4                                                    8
## 5                                                    6
## 6                                                    4
## 7                                                    4
## 8                                                    2
## 9                                                   11
## 10                                                   6
##    Sibling_at_School....c.2..3..0..5..2..3..1..2..6..2.
## 1                                                    2
## 2                                                    3
## 3                                                    0
## 4                                                    5
## 5                                                    2
## 6                                                    3
## 7                                                    1
## 8                                                    2
## 9                                                    6
## 10                                                   2
##    Types_of_Houses....c..Wood....Congrete....Congrete....Wood...
## 1                                                          Wood
## 2                                                       Congrete
## 3                                                       Congrete
## 4                                                          Wood
## 5                                                  Semi-Congrete
## 6                                                  Semi-Congrete
## 7                                                          Wood
## 8                                                  Semi-Congrete
## 9                                                  Semi-Congrete
## 10                                                      Congrete
```

```
write.csv(household.data, file = "HouseholdData.csv", row.names = FALSE)
household.data
```

```
##    respondents....1.10
## 1                    1
## 2                    2
## 3                    3
## 4                    4
## 5                    5
## 6                    6
## 7                    7
## 8                    8
## 9                    9
## 10                  10
##    sex....c..Male....Female....Female....Male....Male....Female...
## 1                                                              Male
## 2                                                            Female
## 3                                                            Female
## 4                                                              Male
## 5                                                              Male
## 6                                                            Female
## 7                                                            Female
## 8                                                              Male
## 9                                                            Female
## 10                                                             Male
##    Fathers_Occupation....c.1..2..3..3..1..2..2..3..1..3.
## 1                                                     1
## 2                                                     2
## 3                                                     3
## 4                                                     3
## 5                                                     1
## 6                                                     2
## 7                                                     2
## 8                                                     3
## 9                                                     1
## 10                                                    3
##    Persons_at_Home....c.5..7..3..8..6..4..4..2..11..6.
## 1                                                    5
## 2                                                    7
## 3                                                    3
## 4                                                    8
## 5                                                    6
## 6                                                    4
## 7                                                    4
## 8                                                    2
## 9                                                   11
## 10                                                   6
##    Sibling_at_School....c.2..3..0..5..2..3..1..2..6..2.
## 1                                                     2
## 2                                                     3
## 3                                                     0
## 4                                                     5
## 5                                                     2
## 6                                                     3
## 7                                                     1
## 8                                                     2
## 9                                                     6
```

```
## 10                                                    2
##    Types_of_Houses....c..Wood....Congrete....Congrete....Wood...
## 1                                                          Wood
## 2                                                       Congrete
## 3                                                       Congrete
## 4                                                          Wood
## 5                                                  Semi-Congrete
## 6                                                  Semi-Congrete
## 7                                                          Wood
## 8                                                  Semi-Congrete
## 9                                                  Semi-Congrete
## 10                                                      Congrete
```

```
household.data<-read.csv("HouseholdData.csv")
```

```
household.data$sex<- factor(household.data$sex)
household.data$sex<-as.integer(factor(household.data$sex,levels = c("Male", "Female"),labels = c(1,2)))
```

```
household.data$Types_of_Houses<- factor(household.data$Types_of_Houses)
household.data$Types_of_Houses<-as.integer(factor(household.data$Types_of_Houses, levels = c("Wood", "C
print(household.data)
```

```
##    respondents....1.10
## 1                    1
## 2                    2
## 3                    3
## 4                    4
## 5                    5
## 6                    6
## 7                    7
## 8                    8
## 9                    9
## 10                  10
##    sex....c..Male....Female....Female....Male....Male....Female...
## 1                                                            Male
## 2                                                          Female
## 3                                                          Female
## 4                                                            Male
## 5                                                            Male
## 6                                                          Female
## 7                                                          Female
## 8                                                            Male
## 9                                                          Female
## 10                                                           Male
##    Fathers_Occupation....c.1..2..3..3..1..2..2..3..1..3.
## 1                                                      1
## 2                                                      2
## 3                                                      3
## 4                                                      3
## 5                                                      1
## 6                                                      2
## 7                                                      2
## 8                                                      3
## 9                                                      1
## 10                                                     3
```

```
##    Persons_at_Home....c.5..7..3..8..6..4..4..2..11..6.
## 1                                                    5
## 2                                                    7
## 3                                                    3
## 4                                                    8
## 5                                                    6
## 6                                                    4
## 7                                                    4
## 8                                                    2
## 9                                                   11
## 10                                                   6
##    Sibling_at_School....c.2..3..0..5..2..3..1..2..6..2.
## 1                                                     2
## 2                                                     3
## 3                                                     0
## 4                                                     5
## 5                                                     2
## 6                                                     3
## 7                                                     1
## 8                                                     2
## 9                                                     6
## 10                                                    2
##    Types_of_Houses....c..Wood....Congrete....Congrete....Wood... sex
## 1                                                           Wood   1
## 2                                                      Congrete   2
## 3                                                      Congrete   2
## 4                                                          Wood   1
## 5                                                 Semi-Congrete   1
## 6                                                 Semi-Congrete   2
## 7                                                          Wood   2
## 8                                                 Semi-Congrete   1
## 9                                                 Semi-Congrete   2
## 10                                                     Congrete   1
##    Types_of_Houses
## 1                1
## 2                2
## 3                2
## 4                1
## 5                3
## 6                3
## 7                1
## 8                3
## 9                3
## 10               2
```

```
household.data$Fathers_Occupation<- factor(household.data$Fathers_Occupation)
household.data$Fathers_Occupation<-as.integer(factor(household.data$Fathers_Occupation, levels = c(1,2,3
print(household.data)
```

```
##    respondents....1.10
## 1                    1
## 2                    2
## 3                    3
## 4                    4
## 5                    5
```

```
## 6                    6
## 7                    7
## 8                    8
## 9                    9
## 10                  10
##    sex....c..Male....Female....Female....Male....Male....Female...
## 1                                                              Male
## 2                                                            Female
## 3                                                            Female
## 4                                                              Male
## 5                                                              Male
## 6                                                            Female
## 7                                                            Female
## 8                                                              Male
## 9                                                            Female
## 10                                                             Male
##    Fathers_Occupation....c.1..2..3..3..1..2..2..3..1..3.
## 1                                                     1
## 2                                                     2
## 3                                                     3
## 4                                                     3
## 5                                                     1
## 6                                                     2
## 7                                                     2
## 8                                                     3
## 9                                                     1
## 10                                                    3
##    Persons_at_Home....c.5..7..3..8..6..4..4..2..11..6.
## 1                                                   5
## 2                                                   7
## 3                                                   3
## 4                                                   8
## 5                                                   6
## 6                                                   4
## 7                                                   4
## 8                                                   2
## 9                                                  11
## 10                                                  6
##    Sibling_at_School....c.2..3..0..5..2..3..1..2..6..2.
## 1                                                    2
## 2                                                    3
## 3                                                    0
## 4                                                    5
## 5                                                    2
## 6                                                    3
## 7                                                    1
## 8                                                    2
## 9                                                    6
## 10                                                   2
##    Types_of_Houses....c..Wood....Congrete....Congrete....Wood... sex
## 1                                                          Wood   1
## 2                                                       Congrete   2
## 3                                                       Congrete   2
## 4                                                          Wood   1
```

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

```
female.drivers<- subset(household.data, sex==2 & Fathers_Occupation == "Driver" )
female.drivers
```

```
## [1] respondents....1.10
## [2] sex....c..Male....Female....Female....Male....Male....Female...
## [3] Fathers_Occupation....c.1..2..3..3..1..2..2..3..1..3.
## [4] Persons_at_Home....c.5..7..3..8..6..4..4..2..11..6.
## [5] Sibling_at_School....c.2..3..0..5..2..3..1..2..6..2.
## [6] Types_of_Houses....c..Wood....Congrete....Congrete....Wood...
## [7] sex
## [8] Types_of_Houses
## [9] Fathers_Occupation
## <0 rows> (or 0-length row.names)
```

```
respondentsSiblingequalgreater5<- subset(household.data, Sibling_at_School >= 5)
respondentsSiblingequalgreater5
```

```
##   respondents....1.10
## 4                   4
## 9                   9
##   sex....c..Male....Female....Female....Male....Male....Female...
## 4                                                            Male
## 9                                                          Female
##   Fathers_Occupation....c.1..2..3..3..1..2..2..3..1..3.
## 4                                                     3
## 9                                                     1
##   Persons_at_Home....c.5..7..3..8..6..4..4..2..11..6.
## 4                                                   8
## 9                                                  11
##   Sibling_at_School....c.2..3..0..5..2..3..1..2..6..2.
## 4                                                   5
## 9                                                   6
##   Types_of_Houses....c..Wood....Congrete....Congrete....Wood... sex
## 4                                                          Wood   1
## 9                                                 Semi-Congrete   2
##   Types_of_Houses Fathers_Occupation
## 4               1                  3
## 9               3                  1
```

#4 The graph shows the sentiments or opinions that are labeled blue (Positive) red(negatvive) and yellow (neutral). It also has track of when were the sentiments recorded, also it has the level of sentiments that are gathered with the mentioned dates from zero (0) to 4000. and below is my interpretation of data July 14, 2020: - Negative: 2,500 - Neutral: 1,500 - Positive: 1,750 July 15, 2020: - Negative:4,000 - Neutral:2,750 - Positive:3,200 July 17, 2020: - Negative:3,250 - Neutral: 1,800 - Positive: 2,500 July 18, 2020: - Negative: 3,250 - Neutral: 2,000 - Positive: 2,500

July 20, 2020: - Negative: 2,500 - Neutral: 1,500 - Positive: 1,750

July 21, 2020: - Negative : 4,000 - Neutral : 2,600 - Positive: 3,300

base on the data, it seems like there are changes in the sentiments every month. which causes it to decrease and increase from time to time and is probably caused by a variety of factors.