RWorksheet_Laurente#3B

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R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

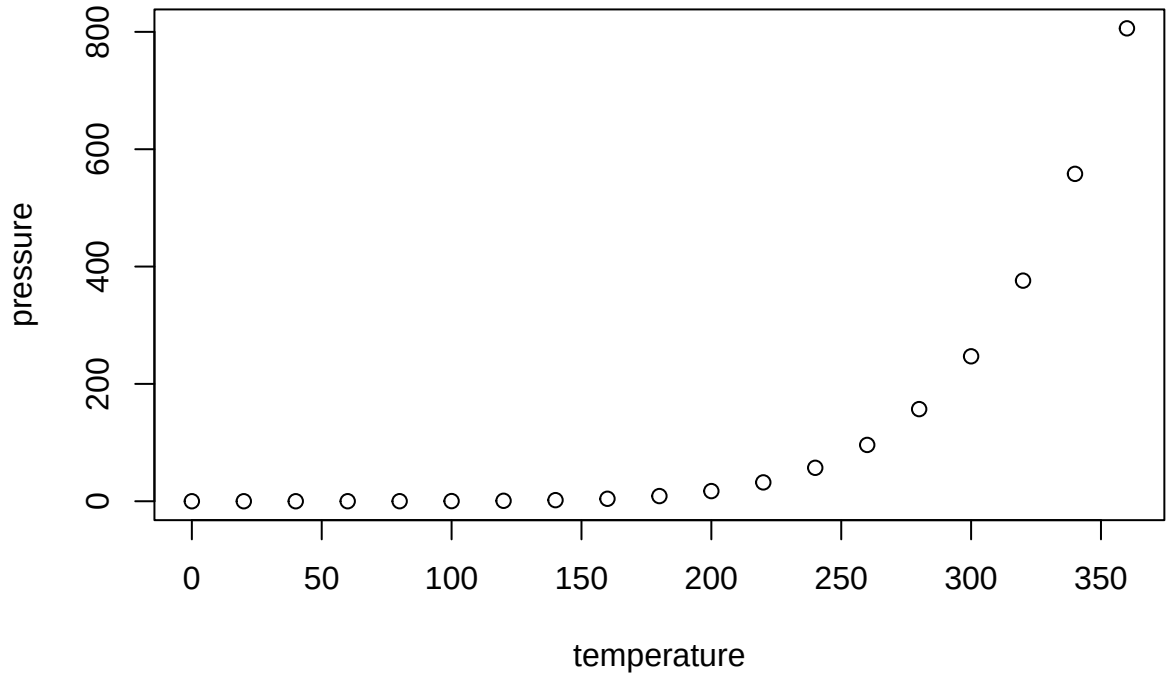
When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
summary(cars)
```

```
##      speed           dist       
##  Min.   : 4.0   Min.   :  2.00  
##  1st Qu.:12.0   1st Qu.: 26.00  
##  Median :15.0   Median : 36.00  
##  Mean   :15.4   Mean   : 42.98  
##  3rd Qu.:19.0   3rd Qu.: 56.00  
##  Max.   :25.0   Max.   :120.00
```

Including Plots

You can also embed plots, for example:



Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.

#KARL ANDREI G. LAURENTE #BSIT 2-B #CS 101

```
#1.)
#a.)
Respondents <- seq(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, 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 <- 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)
a_one <- data.frame(Respondents, Sex, Fathers_Occupation, Persons_at_Home, Siblings_at_School, Types_of_
a_one
```

```
##    Respondents Sex Fathers_Occupation Persons_at_Home Siblings_at_School
## 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
##    Types_of_Houses
## 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
```

```
#1.)
#b.) Every respondent are asked different questions regarding their Sex, Father's Occupation, Persons a
```

```
#1.)
#c.)
mean(Siblings_at_School)
```

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

```
# Incorrect, 5 is not the mean number of Siblings attending but rather 2.95.
```

```
#1.)
#d.)
a_one[1:2, ]
```

```
##   Respondents Sex Fathers_Occupation Persons_at_Home Siblings_at_School
```

```
## 1           1   2                  1               5                  6
## 2           2   2                  3               7                  4
##   Types_of_Houses
## 1               1
## 2               2
```

```
#testing
a_one[c(1,3),c(1,3)]
```

```
##   Respondents Fathers_Occupation
## 1           1                  1
## 3           3                  3
```

```
#1.)
#e.)
a_one[c(3, 5),c(2,4)]
```

```
##   Sex Persons_at_Home
## 3   1               3
## 5   2               5
```

```
#1.)
#f.)
types_houses <- c(a_one$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
```

```
#1.)
#g.)
one_g <- a_one$Respondents[a_one$Sex ==1 & a_one$Fathers_Occupation ==1]
print(one_g)
```

```
## integer(0)
```

```
#1.)
#h.)
one_h <- a_one$Respondents[a_one$Sex == 2 & a_one$Siblings_at_School >= 5]
one_h1 <- paste("Row: ", one_h)
one_h1
```

```
## [1] "Row:  1"  "Row:  7"  "Row:  13" "Row:  14" "Row:  18"
```

```
#2.)
#a.)
two_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(two_df))
```

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

```
#We declared the Ints column to accept integer values but since it has no values inside it, the column
```

```
#.3)
#a.)
RESPONDENTS <- seq(10)
SEX <- c("Male", "Female", "Female", "Male", "Male", "Female", "Female", "Male", "Female", "Male")
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)
SIBLINGS_AT_SCHOOL <- c(2, 3, 0, 5, 2, 3, 1, 2, 6, 2)
TYPES_OF_HOUSES <- c("Wood", "Congrete", "Congrete", "Wood", "Semi-congrete", "Semi-congrete", "Wood",
HouseholdData <- data.frame(RESPONDENTS, SEX, FATHERS_OCCUPATION, PERSONS_AT_HOME, SIBLINGS_AT_SCHOOL,
HouseholdData
```

```
##    RESPONDENTS    SEX FATHERS_OCCUPATION PERSONS_AT_HOME SIBLINGS_AT_SCHOOL
## 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
##    TYPES_OF_HOUSES
## 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(HouseholdData, "C:\\Users\\laure\\Documents\\Karl's Stuff\\ISATU\\2nd Year\\Data Science\\Worl
HouseholdData_Retrieved <- read.csv("HouseholdData.csv")
HouseholdData_Retrieved
```

```
##     X RESPONDENTS    SEX FATHERS_OCCUPATION PERSONS_AT_HOME SIBLINGS_AT_SCHOOL
## 1   1           1   Male                 1               5                  2
## 2   2           2 Female                 2               7                  3
## 3   3           3 Female                 3               3                  0
## 4   4           4   Male                 3               8                  5
## 5   5           5   Male                 1               6                  2
## 6   6           6 Female                 2               4                  3
## 7   7           7 Female                 2               4                  1
## 8   8           8   Male                 3               2                  2
## 9   9           9 Female                 1              11                  6
## 10 10          10   Male                 3               6                  2
##    TYPES_OF_HOUSES
## 1            Wood
## 2         Congrete
## 3         Congrete
## 4            Wood
## 5    Semi-congrete
## 6    Semi-congrete
## 7            Wood
## 8    Semi-congrete
## 9    Semi-congrete
## 10        Congrete
```

```
#3.)
#b.)
HouseholdData$SEX <- factor(HouseholdData$SEX, levels = c("Male", "Female"))
HouseholdData$SEX <- as.integer(HouseholdData$SEX)
HouseholdData
```

```
##    RESPONDENTS SEX FATHERS_OCCUPATION PERSONS_AT_HOME SIBLINGS_AT_SCHOOL
## 1            1   1                 1               5                  2
## 2            2   2                 2               7                  3
## 3            3   2                 3               3                  0
## 4            4   1                 3               8                  5
## 5            5   1                 1               6                  2
## 6            6   2                 2               4                  3
## 7            7   2                 2               4                  1
## 8            8   1                 3               2                  2
## 9            9   2                 1              11                  6
## 10          10   1                 3               6                  2
##    TYPES_OF_HOUSES
## 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
#3.)
#c.)
HouseholdData$TYPES_OF_HOUSES <- factor(HouseholdData$TYPES_OF_HOUSES, levels = c("Wood", "Congrete", "
HouseholdData$TYPES_OF_HOUSES <- as.integer(HouseholdData$TYPES_OF_HOUSES)
HouseholdData
```

```
##    RESPONDENTS SEX FATHERS_OCCUPATION PERSONS_AT_HOME SIBLINGS_AT_SCHOOL
## 1            1   1                  1               5                  2
## 2            2   2                  2               7                  3
## 3            3   2                  3               3                  0
## 4            4   1                  3               8                  5
## 5            5   1                  1               6                  2
## 6            6   2                  2               4                  3
## 7            7   2                  2               4                  1
## 8            8   1                  3               2                  2
## 9            9   2                  1              11                  6
## 10          10   1                  3               6                  2
##    TYPES_OF_HOUSES
## 1                1
## 2                2
## 3                2
## 4                1
## 5                3
## 6                3
## 7                1
## 8                3
## 9                3
## 10               2
```

```r
#3.)
#d.)
HouseholdData$FATHERS_OCCUPATION <- factor(HouseholdData$FATHERS_OCCUPATION, levels = c(1,2,3), labels =
HouseholdData$FATHERS_OCCUPATION <- as.character(HouseholdData$FATHERS_OCCUPATION)
HouseholdData
```

```
##    RESPONDENTS SEX FATHERS_OCCUPATION PERSONS_AT_HOME SIBLINGS_AT_SCHOOL
## 1            1   1             Farmer               5                  2
## 2            2   2             Driver               7                  3
## 3            3   2             Others               3                  0
## 4            4   1             Others               8                  5
## 5            5   1             Farmer               6                  2
## 6            6   2             Driver               4                  3
## 7            7   2             Driver               4                  1
## 8            8   1             Others               2                  2
## 9            9   2             Farmer              11                  6
## 10          10   1             Others               6                  2
##    TYPES_OF_HOUSES
## 1                1
## 2                2
## 3                2
## 4                1
## 5                3
## 6                3
```

```
## 7                1
## 8                3
## 9                3
## 10               2
```

```
#3.)
#e.)
three_e <- HouseholdData$RESPONDENTS[HouseholdData$SEX == 2 & HouseholdData$FATHERS_OCCUPATION == "Drive
three_e1 <- paste("Row: ", three_e)
three_e1
```

```
## [1] "Row:  2" "Row:  6" "Row:  7"
```

```
#3.)
#f.)
three_f <- HouseholdData$SIBLINGS_AT_SCHOOL[HouseholdData$SIBLINGS_AT_SCHOOL >= 5]
three_f1 <- paste("Row: ", three_f)
three_f1
```

```
## [1] "Row:  5" "Row:  6"
```

```
#4.)
#The graph displays the amount of sentiments per day from a social media platform, the sentiments are c
```