RWorksheet_Juntanilla#3b.Rmd

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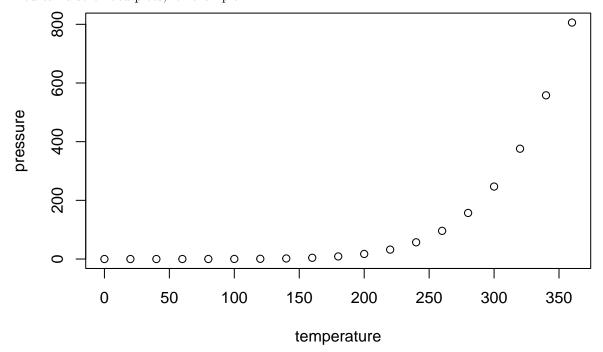
When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
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.

code here

#1. Create a data frame using the table below

#1A.

Household_data_frame <- data.frame(Respondents = c(1:20), Sex = c("Female","Female","Male","Female","Female","Female"...
Fathers_Occupation = c("Farmer","Others","Others","Others","Farmer","Driver","Others","Farmer","Farmer","Farmer","Oth...
Person_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_house = c("Wood","Semi-Concrete","Concrete","Wood","Wood","Concrete","Concrete","Wood","Semi-
Concrete","Concrete","Semi-Concrete","Concrete","Semi-Concrete","Semi-Concrete","Concrete","Concrete","Concrete","Conc...
Concrete")

) Household_data_frame

#1B. Describe the data. Get the structure or the summary of the data

summary(Household_data_frame)

#1C. Is the mean number of siblings attending is 5? siblings_mean <- mean(Household_data_frame$Siblings_at_school)
num_of_mean <- siblings_mean == 5 print(num_of_mean)

#No because the mean is 2.95

#1D. Extract the 1st two rows and then all the columns using the subsetting functions.Write the codes and
its output. two_rows_in_col <- Household_data_frame[1:2,] print(two_rows_in_col)

#1E. Extract 3rd and 5th row with 2nd and 4th column. Write the codes and its result. combined_col <-
Household_data_frame[c(3, 5), c(2, 4)] print(combined_col)

#1F. Select the variable types of houses then store the vector that results as types_houses.Write the codes.
house_types <- Household_data_frame$Types_of_house house_types

#1G. Select only all Males respondent that their father occupation was farmer. Write the codes
and its output. farmer_male_occ <- Household_data_frame[Household_data_frame$Sex ==
"Male"&Household_data_frame$Fathers_Occupation == "Farmer",] print(farmer_male_occ)

#1H. Select only all females respondent that have greater than or equal to 5 number of siblings attending
school. Write the codes and its outputs.Select only all females respondent that have greater than or equal to
5 number of siblings attending school. Write the codes and its outputs.

female_sib_more_than_5 <- Household_data_frame[Household_data_frame$Sex == "Female"&Household_data_frame$Siblin...
>= 5,] print(female_sib_more_than_5)

#2. Write a R program to create an empty data frame. Using the following codes: df <- data.frame(Ints
= integer(0), Doubles = double(0), Characters = character(0), Logicals = logical(0), Factors = factor(NA,
levels = character(0)), stringsAsFactors = FALSE)

print("Structure of the empty dataframe:") str(df)

#2a. The data frame is empty

#3. Create a .csv file of this. Save it as HouseholdData.csv frame_household_data <- data.frame(
Respondents = c(1:10), Sex = c("Male", "Female", "Female", "Male", "Male", "Female", "Female", "Male",
"Female", "Male"), FatherOccupation = c(1, 2, 3, 3, 1, 2, 2, 3, 1, 3), PersonatHome = c(5, 7, 3, 8, 6, 4, 4, 2,
11, 6), Siblingsatschool = c(2, 3, 0, 5, 2, 3, 1, 2, 6, 2), Typeshouse = c("Wood", "Congrete", "Congrete",
"Wood", "Semi-Congrete", "Semi-Congrete", "Wood", "Semi-Congrete", "Semi-Congrete", "Congrete"))
frame_household_data

#3a. Import the csv file into the R environment. Write the codes. write.csv(frame_household_data, file =
"HouseholdData.csv", row.names = FALSE)

#3b.Import the csv file into the R environment. Write the codes. data_imported <- read.csv("HouseholdData.csv")

#3b.(2) Convert the Sex into factor using factor() function and change it into integer.[Legend:Male = 1 and Female = 2]. Write the R codes and its output. data_imported$Sex <- factor(data_imported$Sex, levels = c("Male", "Female")) data_imported$Sex <- as.integer(data_imported$Sex)

#3c. Convert the Type of Houses into factor and change it into integer. [Legend: Wood= 1; Congrete = 2; Semi-Congrete = 3]. Write the R codes and its output. imported_data$Typeshouse <- factor(imported_data$Typeshouse, levels = c("Wood", "Concrete", "Semi-Concrete")) imported_data$Typeshouse <- as.integer(imported_data$Typeshouse)

#3d. On father's occupation, factor it as Farmer = 1; Driver = 2; and Others = 3. What is the R code and its output? imported_data$FatherOccupation <- factor(imported_data$FatherOccupation, levels = c("Farmer", "Driver", "Others")) imported_data$FatherOccupation <- as.integer(imported_data$FatherOccupation)

#3e. Select only all females respondent that has a father whose occupation is driver. Write the codes and its output. female_drivers <- imported_data[imported_data$Sex == 2 & imported_data$FatherOccupation == 2,] print(female_drivers)

#3f. Select the respondents that have greater than or equal to 5 number of siblings attending school. Write the codes and its output. greater_than_5_siblings <- imported_data[imported_data$Siblingsatschool >= 5,] print(greater_than_5_siblings)

#4. Interpret the graph

The graph in figure 3 represents the sentiments of people every day that has a major impact on our world everytime. In short, we always allow ourselves to show our opinions and our knowledge that we learn in a all day basis.