Data Science Notes (RStudio) (Day 3)

* *‘set.seed()’*
  + To lock the result
  + You can put any number as the parameter
  + Maximum number for the parameter: **10 digits**
  + How to use:
    - *set.seed(***\*number\****)*
* *‘xtabs()’*
  + To calculate part of numeric-type that is being divided with any part of current data
  + Formula = **\*numeric-type\*** ~ **\*factor-type\***
  + To add ‘categories’ for dividing the result, just use ‘+’ symbol and add that part
  + Data = Current data that is going to be used
  + How to use:
    - *xtabs(Formula =* **\*part of numeric-type of current data\*** *~* **\*part(s) of any current data\****, data =* **\*current data\****)*
* *‘plot()’*
  + To plot the result of any calculation
  + To change the title of the plot, add *‘main’* parameter
  + How to use:
    - *plot(***\*result of a calculation\****)*
* *‘aggregate()’*
  + Similar to *‘xtabs()’*. The difference is that you can set the result with any kind of function. For instance, mean, median, max, min, etc.
  + The reason why is that aggregate is the ‘updated’ version of the *‘xtabs()’*
  + You can not write the ‘formula = ‘, ‘data = ‘ and the ‘FUN = ‘ part. However, it **has** to be **at the specified section**
  + Common functions:
    - *‘max’*: Maximum
    - *‘min’*: Minimum
    - *‘mean’*: Mean
    - *‘median’*: Median
    - *‘sum’*: Total
    - *‘length’*: Frequency
  + How to use:
    - *aggregate(Formula =* **\*part of numeric-type of current data\*** *~* **\*part(s) of any current data\****, data =* **\*current data\****, FUN =* **\*type of function\****)*
* Install Packages
  + The function to install any packages is ‘install.packages()’
    - You can install the packages **only at the console**. If you install it at the chunk, you might install the packages multiple times.
    - How to use:
      * Install.packages(\*name of the package\*)
  + To call the installed packages, use the *‘library()’* packages
* Cheat Sheets
  + Way #1: Press ‘help’ and select cheetsheet
  + Way #2: Search at google for ‘cheetsheet for RStudio’
* RScript
* Function
  + To make a function, just type ‘function’ and press tab. Look at the suggestion.
    - Name: name of the custom function
    - Variables: parameter(s) of the custom function
  + To call an RScript, you can use *‘source()’* with a path as its parameter
    - How to use:
      * *source(***\*path to the rscript\****)*
* lbb
* Extra Node:
  + Commands:
    - To make a vector -type data: *c(***\*every input\****)*
    - To take a random sampling of a data: sample(\*current data\*,\*total data that you want to take\*)
      * Remember that for the current data, it **has** to be **1-dimensional­** data