

# **Data Processing in RStudio**

**MB4030** Business Intelligence and Analytics

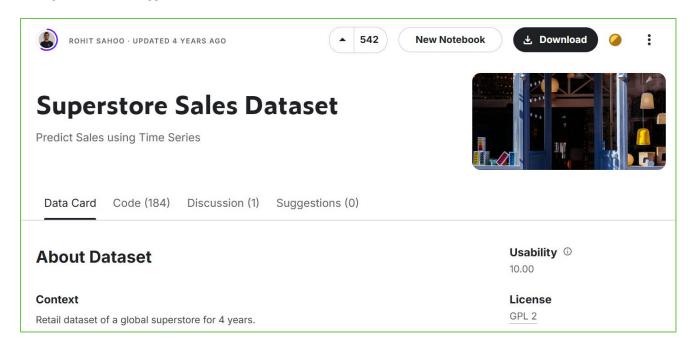
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# **Importing Data**

#### **CSV** to R



Data gathered from Kaggle.com



# **Simple Data Processing**

## **Scripts and Result**



#### Olah Data 1

data <- read.csv("C:/Users/Riefka Hasna/Downloads/archive (3)/train.csv") head(data) summary(data)

Data				
codata 98		9800	obs.	of 18 variables
\$	Row.ID	:	int	1 2 3 4 5 6 7 8 9 10
\$	Order.ID		chr	"CA-2017-152156" "CA-2017
\$	\$ Order.Date		Date	, format: NA NA NA
\$	Ship.Date		chr	"11/11/2017" "11/11/2017"
\$	Ship.Mode	:	chr	"Second Class" "Second Cla
\$	Customer.II	:	chr	"CG-12520" "CG-12520" "DV
\$	Customer.Na	ıme:	chr	"Claire Gute" "Claire Gute
\$	Segment	:	chr	"Consumer" "Consumer" "Cor
\$	Country	:	chr	"United States" "United St
\$	City	•	chr	"Henderson" "Henderson" "L
\$	\$ State		chr	"Kentucky" "Kentucky" "Cal
\$	Postal.Code	:	int	42420 42420 90036 33311 33
\$	Region	:	chr	"South" "South" "West" "So
\$	Product.ID	:	chr	"FUR-BO-10001798" "FUR-CH
\$	Category	:	chr	"Furniture" "Furniture" "O
\$	Sub. Categor	у:	chr	"Bookcases" "Chairs" "Labe
\$	Product.Nar	ne :	chr	"Bush Somerset Collection
\$	Sales		num	262 731.9 14.6 957.6 22.4

summary(data) Row.ID	Order.ID	Order.Date	Ship.Date	Ship.Mode
in. : 1 Length:9800		Length: 9800	Length: 9800	Length: 9800
	Class :character	Class : character	Class :character	Class :character
	Mode :character	Mode : character	Mode :character	Mode :character
Mean :4900	ioue Tenar accer	node Tenaraccer	riode Terrai de cer	Hode Tenaracter
3rd Ou.:7350				
Max. :9800				
Customer.ID	Customer.Name	Segment	Country	City
Length: 9800	Length: 9800	Length: 9800	Length: 9800	Length: 9800
Class :character	r Class : characte	er Class :charac	ter Class:charact	ter Class:characte
Mode :character	r Mode :characte	er Mode :charac	ter Mode :charact	ter Mode :characte
State Length:9800 Class :characte Mode :characte		Region Length:9800 Class :character Mode :character		Category Length:9800 Class :character Mode :character
Sub.Category	Product.Name	Sales		
Length: 9800	Length: 9800	Min. : 0	. 444	
	r Class :characte	er 1st Qu.: 17	. 248	
Class :character		er Median : 54	. 490	
Class :characte Mode :characte	r Mode :characte			
	r Mode :charact		. 769	
	r Mode :charact	Mean : 230	. 769 . 605	

## **Simple Data Processing**

### **Scripts and Result**



#### Olah Data 2

data <- read.csv("C:/Users/Riefka Hasna/Downloads/archive (3)/train.csv") head(data) data\$Order.Date <- as.Date(data\$Order.Date, format = "%Y-%m-%d") sorted\_data <- data[order(data\$Order.Date), ]

head(data)

```
Data
n data
                 9800 obs. of 18 variables
sorted_data
                 9800 obs. of 18 variables
    $ ROW. ID
                    : int 1 2 3 4 5 6 7 8 9 10 ...
    $ Order, TD
                           "CA-2017-152156" "CA-2017-...
    $ Order.Date
                  : Date. format: NA NA NA ...
                    : chr "11/11/2017" "11/11/2017" ...
    $ Ship.Date
    $ Ship. Mode
                           "Second Class" "Second Cla...
    $ Customer.ID : chr
                           "CG-12520" "CG-12520" "DV-...
    $ Customer.Name: chr
                           "Claire Gute" "Claire Gute...
                            "Consumer" "Consumer" "Cor
    $ Segment
    $ Country
                    : chr
                           "United States" "United St ...
                           "Henderson" "Henderson" "L...
    $ City
                           "Kentucky" "Kentucky" "Cal...
    $ State
                    : chr
    $ Postal.Code : int
                           42420 42420 90036 33311 33...
    $ Region
                            "South" "South" "West" "So
    $ Product.ID
                           "FUR-BO-10001798" "FUR-CH-...
    $ Category
                           "Furniture" "Furniture" "O ...
                           "Bookcases" "Chairs" "Labe ...
    $ Sub.Category : chr
    $ Product.Name : chr
                           "Bush Somerset Collection ...
    $ Sales
                    : num 262 731.9 14.6 957.6 22.4 ...
```

```
> data$Order.Date <- as.Date(data$Order.Date, format = "%Y-%m-%d")</pre>
> sorted_data <- data[order(data$order.Date), ]</pre>
> head(data)
  Row. ID
               Order.ID Order.Date Ship.Date
                                                    Ship, Mode Customer, ID
                                                                            Customer.Name
                               <NA> 11/11/2017
       1 CA-2017-152156
                                                 Second Class
                                                                 CG-12520
                                                                              Claire Gute
                                                                 CG-12520
       2 CA-2017-152156
                              <NA> 11/11/2017
                                                 Second Class
                                                                              Claire Gute
       3 CA-2017-138688
                              <NA> 16/06/2017
                                                 Second Class
                                                                 DV-13045 Darrin Van Huff
                              <NA> 18/10/2016 Standard Class
       4 US-2016-108966
                                                                 SO-20335 Sean O'Donnell
       5 US-2016-108966
                              <NA> 18/10/2016 Standard Class
                                                                 SO-20335 Sean O'Donnell
       6 CA-2015-115812
                              <NA> 14/06/2015 Standard Class
                                                                 BH-11710 Brosina Hoffman
                                                State Postal.Code Region
    Seament
                  Country
                                     City
                                                                              Product, TD
  Consumer United States
                                Henderson
                                            Kentucky
                                                            42420 South FUR-BO-10001798
   Consumer United States
                                Henderson
                                            Kentucky
                                                            42420 South FUR-CH-10000454
3 Corporate United States
                              Los Angeles California
                                                                    West OFF-LA-10000240
   Consumer United States Fort Lauderdale
                                              Florida
                                                            33311 South FUR-TA-10000577
                                              Florida
   Consumer United States Fort Lauderdale
                                                            33311 South OFF-ST-10000760
  Consumer United States
                              Los Angeles California
                                                                    West FUR-FU-10001487
                                                            90032
         Category Sub. Category
        Furniture
                     Bookcases
        Furniture
                        Chairs
3 Office Supplies
                        Labels
        Furniture
                        Tables
5 Office Supplies
                       Storage
        Furniture Furnishings
                                                       Product. Name
                                                                       Sales
                                 Bush Somerset Collection Bookcase 261,9600
       Hon Deluxe Fabric Upholstered Stacking Chairs, Rounded Back 731.9400
         Self-Adhesive Address Labels for Typewriters by Universal 14.6200
                     Bretford CR4500 Series Slim Rectangular Table 957.5775
                                     Eldon Fold 'N Roll Cart System 22.3680
6 Eldon Expressions Wood and Plastic Desk Accessories, Cherry Wood 48.8600
```