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Title – M1_Project

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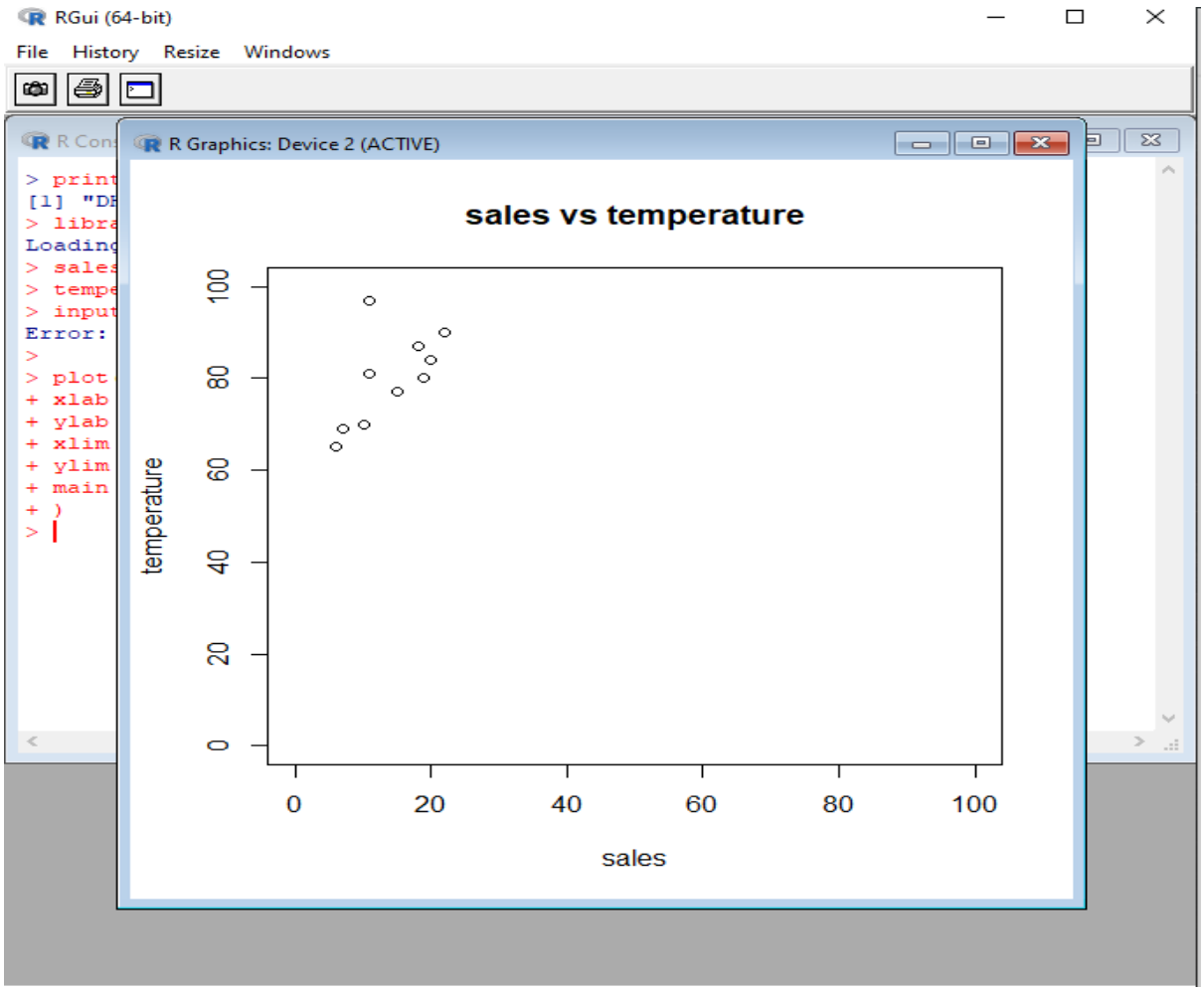
Module 1 – Project

a. **A scatter plot of the Sales ~ temp data**

```
> sales<- c(7,11,15,20,19,11,18,10,6,22)
> temperature<- c(69,81,77,84,80,97,87,70,65,90)
> input <- c('sales', 'temperature')
> plot(x = sales, y = temperature,
+ xlab = "sales",
+ ylab = "temperature",
+ xlim = c(0, 100),
+ ylim = c(0, 100),
+ main = "sales vs temperature"
+ )
```



b. The mean temperature

```
> mean(temperature)
[1] 80
```

c. Display the data after steps 6 and 7

```
> sales<- sales[! sales %in% c(20)]
> sales
[1]  7 11 15 19 11 18 10  6 22
> temperature <- append(temperature,16,2)
> temperature
 [1] 69 81 16 77 84 80 97 87 70 65 90
```

d. Display the names vector

```
> names <- c("tom","dick","harry")
> names
[1] "tom"   "dick"  "harry"
```

e. Display the 5 row by 2 column of 10 integers

```
> y <- matrix(1:10, nrow=5, ncol=2)
> y
     [,1] [,2]
[1,]    1    6
[2,]    2    7
[3,]    3    8
[4,]    4    9
[5,]    5   10
```

f. Display the icSales data frame

```
> s <- c(7,11,15,20,19,11,18,10,6,22)
> t <- c(69,81,77,84,80,97,87,70,65,90)
> iscale <- data.frame(s,t)
> iscale
    s  t
1   7 69
2  11 81
3  15 77
4  20 84
5  19 80
6  11 97
7  18 87
8  10 70
9   6 65
10 22 90
```

g. Display the summary of the icSales data frame

```
> summary(iscale)
       s                t
 Min.   : 6.00   Min.   :65.00
 1st Qu.:10.25   1st Qu.:71.75
 Median :13.00   Median :80.50
 Mean   :13.90   Mean   :80.00
 3rd Qu.:18.75   3rd Qu.:86.25
 Max.   :22.00   Max.   :97.00
```

h. Display the variables only from the Student.csv data set.

```
> datal <- read.csv(file.choose(), header=T)
Warning message:
In read.table(file = file, header = header, sep = sep, quote = quote,  :
  incomplete final line found by readTableHeader on 'C:\Users\dhruvil patel\Dow$
> datal
  StudentID First          Last Math Science Social.Studies
1        11   Bob         Smith   90      80             67
2        12  Jane         Weary   75      NA             80
3        10   Dan Thornton, III   65      75             70
4        40  Mary       O'Leary   90      95             92
> datal[0,]
[1] StudentID      First          Last           Math           Science
[6] Social.Studies

> ls(datal)
[1] "First"          "Last"           "Math"           "Science"
[5] "Social.Studies" "StudentID"
```

i. A summary of the information you learned about the data sets based on the instructions you followed.

The summary of the information learned is as followed.

From this assignment I learned to deal with the data, the operations that I performed were installing a package, loading a package, creating a vector, manipulating a vector, create matrices and data-frame, creating a scatter plot. Moreover, importing the csv file and reading that imported file.

Concluding all, I have cleared my basic concepts for r programming.

Bibliography:

http://127.0.0.1:18828/library/vcd/html/00Index.html

https://cran.r-project.org/mirrors.html

http://127.0.0.1:18828/doc/html/packages.html

https://rdrr.io/cran/vcd/

https://r-forge.r-project.org/R/?group_id=351

https://www.geeksforgeeks.org/scatter-plots-in-r-language/

R in action book

Appendix:

LINK - https://github.com/Dhruvilp7120/ALY6000-Patel

Code

```
> print("DHRUVIL SUNILBHAI PATEL")
[1] "DHRUVIL SUNILBHAI PATEL"
> library(vcd)
Loading required package: grid
> sales<- c(7,11,15,20,19,11,18,10,6,22)
> temperature<- c(69,81,77,84,80,97,87,70,65,90)
> input <- c('sales', 'temperature')]
Error: unexpected ']' in "input <- c('sales', 'temperature')]"
>
> plot(x = sales, y = temperature,
+ xlab = "sales",
+ ylab = "temperature",
+ xlim = c(0, 100),
+ ylim = c(0, 100),
+ main = "sales vs temperature"
+ )
> mean(temperature)
[1] 80
> sales<- sales[! sales %in% c(20)]
> sales
[1]  7 11 15 19 11 18 10  6 22
> temperature <- append(temperature,16,2)
> temperature
 [1] 69 81 16 77 84 80 97 87 70 65 90
> names <- c("tom","dick","harry")
```

```
> names
[1] "tom"   "dick"  "harry"
> y <- matrix(1:10, nrow=5, ncol=2)
> y
     [,1] [,2]
[1,]    1    6
[2,]    2    7
[3,]    3    8
[4,]    4    9
[5,]    5   10
> s <- c(7,11,15,20,19,11,18,10,6,22)
> t <- c(69,81,77,84,80,97,87,70,65,90)
> iscale <- data.frame(s,t)
> iscale
   s  t
1   7 69
2  11 81
3  15 77
4  20 84
5  19 80
6  11 97
7  18 87
8  10 70
9   6 65
10 22 90
> summary(iscale)
       s               t
 Min.   : 6.00   Min.   :65.00
 1st Qu.:10.25   1st Qu.:71.75
 Median :13.00   Median :80.50
 Mean   :13.90   Mean   :80.00
```

```
 3rd Qu.:18.75   3rd Qu.:86.25
 Max.   :22.00   Max.   :97.00
> data1 <- read.csv(file.choose(), header=T)
Warning message:
In read.table(file = file, header = header, sep = sep, quote = quote,  :
  incomplete final line found by readTableHeader on 'C:\Users\dhruvil patel\Downloads\Student.csv'
> data1
  StudentID First         Last Math Science Social.Studies
1        11   Bob        Smith   90      80           67
2        12  Jane        Weary   75      NA           80
3        10   Dan Thornton, III   65      75           70
4        40  Mary      O'Leary   90      95           92
> data1[0,]
[1] StudentID     First         Last          Math          Science
[6] Social.Studies
<0 rows> (or 0-length row.names)
> save.image("C:\\Users\\dhruvil patel\\Desktop\\Assignment_one.RData")
> q()
> ls(data1)
[1] "First"         "Last"          "Math"          "Science"
[5] "Social.Studies" "StudentID"
```