CHOPRA_M1_Projet1.R

jatin

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```
print("JATIN CHOPRA")
```

```
## [1] "JATIN CHOPRA"
```

```
#2. Install the vcd package
install.packages('vcd', repos = "http://cran.us.r-project.org")
```

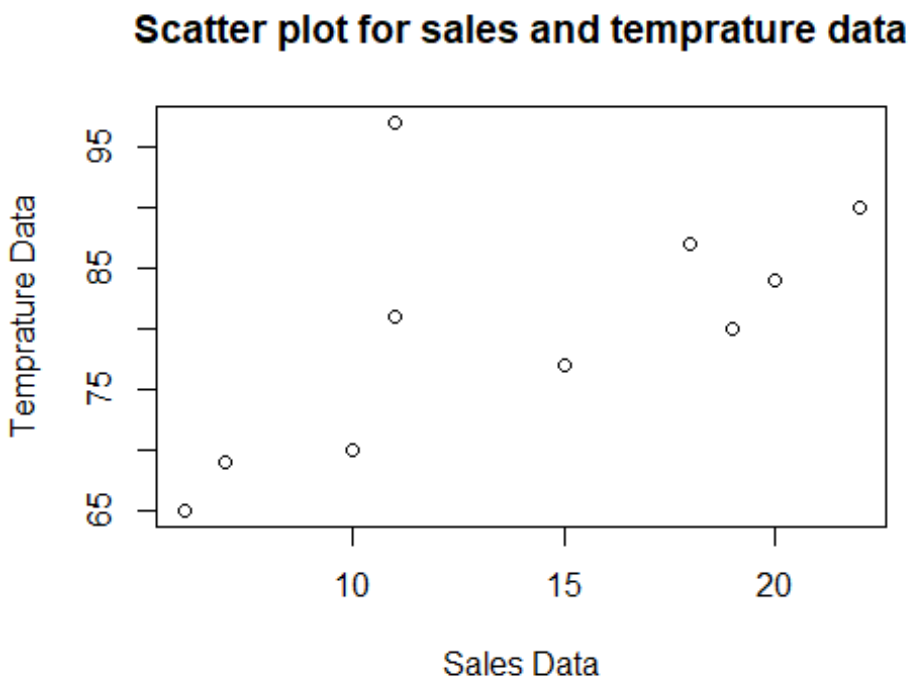
```
## Installing package into 'C:/Users/jatin/Documents/R/win-library/4.1'
## (as 'lib' is unspecified)
```

```
## package 'vcd' successfully unpacked and MD5 sums checked
##
## The downloaded binary packages are in
##  C:\Users\jatin\AppData\Local\Temp\Rtmp8MdC1N\downloaded_packages
```

```
#3. Import the vcd library
library(vcd)
```

```
## Loading required package: grid
```

```
#4. Plot a sales ~ temp scatter plot using the data below:
#  Sales data: (7,11,15,20,19,11,18,10,6,22)
#Temperature data: (69,81,77,84,80,97,87,70,65,90)
Sales_data <- c(7,11,15,20,19,11,18,10,6,22)
Temperature_data <- c(69,81,77,84,80,97,87,70,65,90)
plot(Sales_data,Temperature_data, type = 'p', xlab = 'Sales Data', ylab =
'Temprature Data',main = 'Scatter plot for sales and temprature data')
```




```r
#5. Find the mean temperature
mean(Temperature_data)
```

```
## [1] 80
```

```r
#6. Delete the 3rd element from the sales vector
updated_sales_data <- c(Sales_data[ - 3])
updated_sales_data
```

```
## [1]  7 11 20 19 11 18 10  6 22
```

```r
#7. Insert 16 as the 3rd element into the sales vector
Inserted_sales_data <- append(Sales_data,16,2)
Inserted_sales_data
```

```
##  [1]  7 11 16 15 20 19 11 18 10  6 22
```

```r
#8. Create a vector <names> with elements Tom, Dick, Harry
names<- c("Tom","Dick","Harry")
names
```

```
## [1] "Tom"   "Dick"  "Harry"
```

```r
#9. Create a 5 row and 2 column matrix of 10 integers
dimensions<- list(c("row1","row2","row3","row4","row5"),c("col1","col2"))
mat<- matrix(1:10,nrow = 5,ncol = 2,byrow = TRUE,dimnames = dimensions)
mat
```

```
##      col1 col2
## row1    1    2
## row2    3    4
## row3    5    6
## row4    7    8
## row5    9   10
```

```
#10. Create a data frame <icSales> with sales and temp attributes
icSales<- data.frame(Sales_data,Temperature_data)
icSales
```

```
##    Sales_data Temperature_data
## 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
```

```
#11. Display the data frame structure of icScales
str(icSales)
```

```
## 'data.frame':    10 obs. of  2 variables:
##  $ Sales_data      : num  7 11 15 20 19 11 18 10 6 22
##  $ Temperature_data: num  69 81 77 84 80 97 87 70 65 90
```

```
#12. Display a summary of the icScales data frame
summary(icSales)
```

```
##    Sales_data    Temperature_data
##  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
```

```
#13. Import the dataset Student.csv
df<- read.csv("C:\\Users\\jatin\\Documents\\ALY 6000\\R script\\Student.csv",
header = TRUE)
```

```
## Warning in read.table(file = file, header = header, sep = sep, quote =
quote, :
## incomplete final line found by readTableHeader on
'C:\Users\jatin\Documents\ALY
## 6000\R script\Student.csv'
```

```
df
```

```
##   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
```

```
#14. Display only the variable names of the Student.csv dataset
colnames(df)
```

```
## [1] "StudentID"      "First"          "Last"           "Math"
## [5] "Science"        "Social.Studies"
```