IT2120 - Probability and Statistics

Lab 04

01,02

```
#Lab04
#Exercise
#01
setwd("C:/Users/it24102453/Desktop/IT24102453/Lab04")

branch_data<-read.table("Exercise.txt",header=TRUE,sep=",")
fix(branch_data)
attach(branch_data)

#02
#Branch    - catagorical(nominal)
#sales_x1  - Numeric(Ratio)
#Advertising_X2 - Numeric(Ratio)
#Years_X3  - Numeric(Ratio)
```
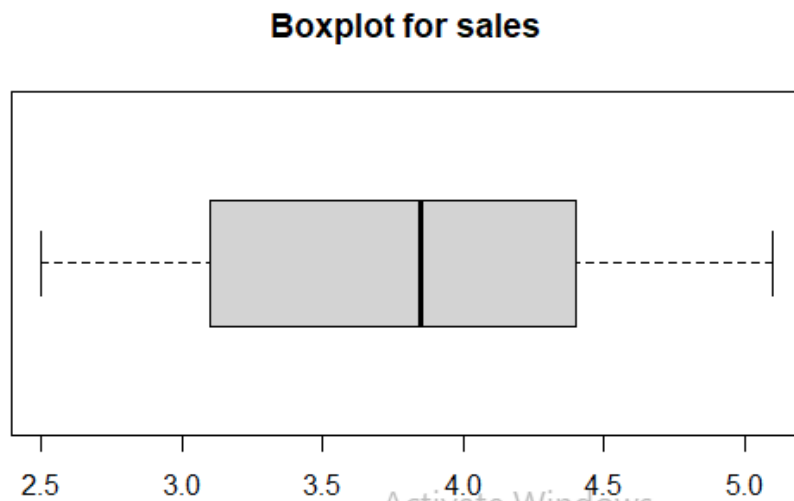
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	Branch	Sales_X1	Advertising_X2	Years_X3	var5	var6	var7
1	1	3.4	120	4			
2	2	4.1	150	7			
3	3	2.8	90	3			
4	4	5	200	10			
5	5	3.7	110	5			
6	6	4.5	175	6			
7	7	3	95	2			
8	8	4.9	185	9			
9	9	3.2	105	4			

03

```
> #03
> boxplot(branch_data$Sales_X1,main="Boxplot for sales",outline=TRUE,outpch=8,horizontal=TRU
E)
>
```

Boxplot for sales

04.

```
> #04
> summary(branch_data$Advertising_X2)
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
   80.0   101.2   132.5   134.8   158.8   210.0
> fivenum(branch_data$Advertising_X2)
[1]   80.0 100.0 132.5 160.0 210.0
> IQR(branch_data$Advertising_X2)
[1] 57.5
> |
```

05.

```
> #05
> find_outliers<-function(x){
+    Q1<-quantile(x,0.25)
+    Q3<-quantile(x,0.75)
+    IQR_val<-Q3-Q1
+    lower <- Q1-1.5*IQR_val
+    upper <- Q3+1.5*IQR_val
+
+    outliers<-x[x<lower|x>upper]
+    return(outliers)
+ }
> find_outliers(branch_data$Years_X3)
numeric(0)
> |
```