Lab sheet 04

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01).
```
> #1
> branch_data <- read.table("Exercise.txt",header=TRUE,sep=",")
```

02).
```
> summary(branch_data)
     Branch          Sales_X1       Advertising_X2     Years_X3
 Min.   : 1.00   Min.   :2.500   Min.   : 80.0   Min.   : 1.00
 1st Qu.: 8.25   1st Qu.:3.125   1st Qu.:101.2   1st Qu.: 3.25
 Median :15.50   Median :3.850   Median :132.5   Median : 5.50
 Mean   :15.50   Mean   :3.790   Mean   :134.8   Mean   : 5.70
 3rd Qu.:22.75   3rd Qu.:4.375   3rd Qu.:158.8   3rd Qu.: 7.75
 Max.   :30.00   Max.   :5.100   Max.   :210.0   Max.   :12.00
```

03).
```
> #3
> boxplot(branch_data$Sales_X1,main="Boxplot of sales",horizontal = TRUE)
> |
```

Boxplot of sales
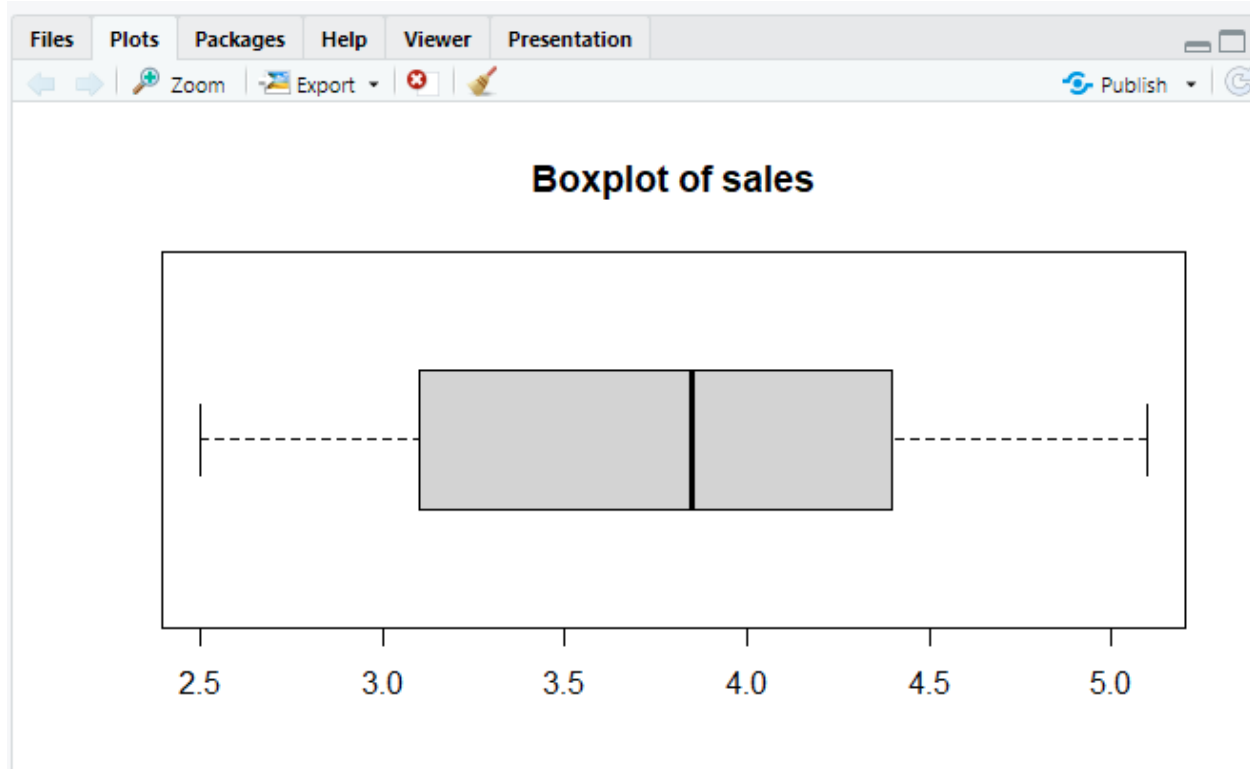

```
> summary(branch_data$Advertising_X2)
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
   80.0   101.2   132.5   134.8   158.8   210.0
> IQR_Advertising <- IQR(branch_data$Advertising_X2)
> print(paste("IQR of Advertising:",IQR_Advertising))
[1] "IQR of Advertising: 57.5"
>
```
04).

```
> get.outliers <- function(x){
+    q1 <- quantile(x,0.25)
+    q3 <- quantile(x,0.75)
+    iqr <- q3 - q1
+    lower_bound <- q1 - 1.5 * iqr
+    upper_bound<- q3 + 1.5 *iqr
+    outliers <- x[x < lower_bound | x > upper_bound]
+    return(outliers)
+ }
> get.outliers(branch_data$Years_X3)
integer(0)
>
```
05).