

IT24103841

PS Lab 4

```
1 setwd("C:/Users/it24103841/Desktop/IT24103841")
2 branch_data <- read.table("Exercise.txt", header = TRUE, sep = ",")
3 str(branch_data)
4 boxplot(branch_data$Sales_X1, main = "Boxplot for sales", ylab = "Sales")
5 summary(branch_data$Advertising_X2)
6 IQR(branch_data$Advertising_X2)
7
8 find_outliers <- function(x) {
9   Q1 <- quantile(x, 0.25)
10  Q3 <- quantile(x, 0.75)
11  IQR_value <- IQR(x)
12  lower_bound <- Q1 - 1.5 * IQR_value
13  upper_bound <- Q3 + 1.5 * IQR_value
14  outliers <- x[x < lower_bound | x > upper_bound]
15  return(outliers)
16 }
17
18 outliers_advertising <- find_outliers(branch_data$Advertising_X2)
19 outliers_advertising
```

```

> setwd("C:/Users/it24103841/Desktop/IT24103841")
> branch_data <- read.table("Exercise.txt", header = TRUE, sep = ",")
> str(branch_data)
'data.frame': 30 obs. of 4 variables:
 $ Branch      : int  1 2 3 4 5 6 7 8 9 10 ...
 $ Sales_X1     : num  3.4 4.1 2.8 5 3.7 4.5 3 4.9 3.2 2.5 ...
 $ Advertising_X2: int  120 150 90 200 110 175 95 185 105 80 ...
 $ Years_X3     : int   4 7 3 10 5 6 2 9 4 1 ...
> boxplot(branch_data$Sales_X1, main = "Boxplot for Sales", ylab = "Sales")
> summary(branch_data$Advertising_X2)
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
 80.0  101.2  132.5  134.8  158.8  210.0
> IQR(branch_data$Advertising_X2)
[1] 57.5
>
> find_outliers <- function(x) {
+   Q1 <- quantile(x, 0.25)
+   Q3 <- quantile(x, 0.75)
+   IQR_value <- IQR(x)
+   lower_bound <- Q1 - 1.5 * IQR_value
+   upper_bound <- Q3 + 1.5 * IQR_value
+   outliers <- x[x < lower_bound | x > upper_bound]
+   return(outliers)
+ }
>
> outliers_advertising <- find_outliers(branch_data$Advertising_X2)
> outliers_advertising
integer(0)
>

```

