IT24103841

PS Lab 4

```r
setwd("C:/Users/it24103841/Desktop/IT24103841")
branch_data <- read.table("Exercise.txt", header = TRUE, sep = ",")
str(branch_data)
boxplot(branch_data$Sales_X1, main = "Boxplot for Sales", ylab = "Sales"
summary(branch_data$Advertising_X2)
IQR(branch_data$Advertising_X2)

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
```

```
> 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)
>
```