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PRACTICAL 3

Laptop Sales at a London Computer Chain: The file LaptopSalesJanuary2008.csv contains data for all sales of laptops at a computer chain in London in January 2008. This is a subset of the full dataset that includes data for the entire year.

```
LS<- read.csv("LaptopSalesJanuary2008.csv",header=TRUE)
View(LS)
summary(LS)
```

a. Create a bar chart, showing the average retail price by store. Which store has the highest average? Which has the lowest?

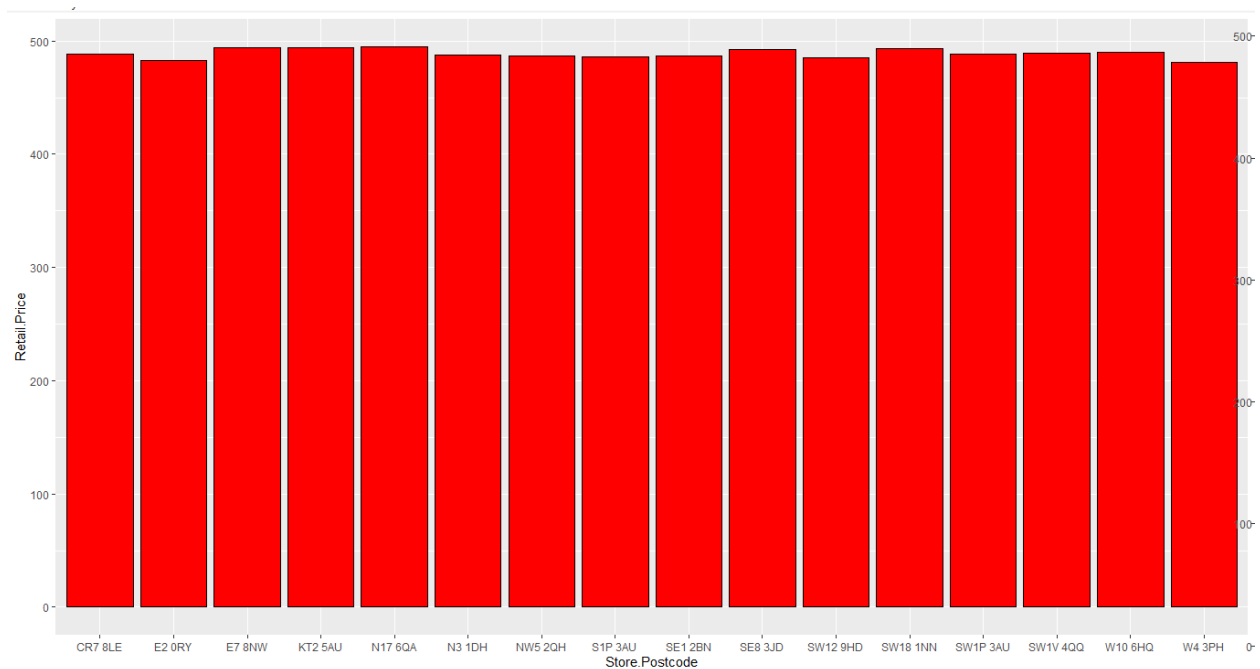
```
library(ggplot2)

ggplot(LS) + geom_bar(aes(Store.Postcode,Retail.Price),stat="summary",fun.y="mean",
                      fill="red",color="black")

agg.data=aggregate(data=LS,Retail.Price~Store.Postcode,mean)

View(agg.data)

agg.data[order(agg.data$Retail.Price),]
```



| Filter | | | |
|--------|----------------|--------------|--|
| | Store.Postcode | Retail.Price | |
| 1 | CR7 8LE | 488.6190 | |
| 2 | E2 0RY | 483.1717 | |
| 3 | E7 8NW | 494.3814 | |
| 4 | KT2 5AU | 493.9048 | |
| 5 | N17 6QA | 494.6341 | |
| 6 | N3 1DH | 487.3684 | |
| 7 | NW5 2QH | 486.5805 | |
| 8 | S1P 3AU | 486.2500 | |
| 9 | SE1 2BN | 486.6802 | |
| 10 | SE8 3JD | 492.1778 | |
| 11 | SW12 9HD | 485.2957 | |
| 12 | SW18 1NN | 493.0389 | |
| 13 | SW1P 3AU | 488.5069 | |

Showing 1 to 13 of 16 entries, 2 total columns

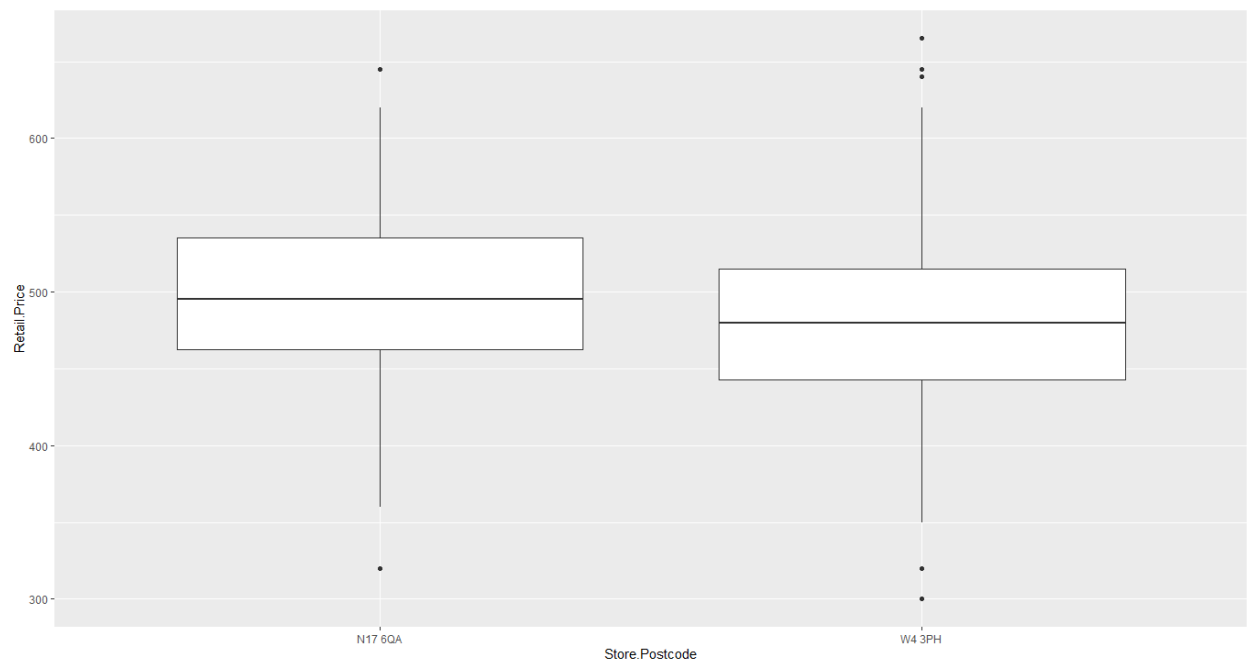
```
> agg.data[order(agg.data$Retail.Price),]
  Store.Postcode Retail.Price
16      W4 3PH      481.0063
 2      E2 0RY      483.1717
11     SW12 9HD      485.2957
 8      S1P 3AU      486.2500
 7      NW5 2QH      486.5805
 9      SE1 2BN      486.6802
 6      N3 1DH      487.3684
13     SW1P 3AU      488.5069
 1      CR7 8LE      488.6190
14     SW1V 4QQ      489.3450
15      W10 6HQ      489.8667
10     SE8 3JD      492.1778
12     SW18 1NN      493.0389
 4      KT2 5AU      493.9048
 3      E7 8NW      494.3814
 5      N17 6QA      494.6341
```

b. To better compare retail prices across stores, create side-by-side boxplots of retail price by store. Now compare the prices in the two stores from (a). Does there seem to be a difference between their price distributions?

```
ggplot(LS) + geom_boxplot(aes(Store.Postcode,Retail.Price))
```

```
subLS=subset(LS,Store.Postcode %in% c("W4 3PH","N17 6QA"))
```

```
ggplot(subLS) + geom_boxplot(aes(Store.Postcode,Retail.Price))
```



Solution:

Dataset used: LaptopSalesJanuary2008.csv

Description of the variables used in the database:

Date: date and Time of purchase.

Customer.Postcode : Postal code of the customer who purchased the Laptop.

Store.Postcode : Postal code of the store from where the laptop was purchased.

Retail.Price : Price of the laptop (in \$).

Screen.Size(Inches) : Size of the laptop screen in inches.

Battery.Life(Hours) : Life of the Battery(in Hours).

RAM(GB) : Size of the RAM(in GB).

Processor.Speeds(GHz) : Processor Speed in GHz.

Integrated.Wireless : Is the Laptop integrated with wireless(YES/NO).

HD.Size(GB) : Size of the Hard Disk (in GB).

CustomerStoreDistance : Distance between the customer and the Store in mts.