Business Compare

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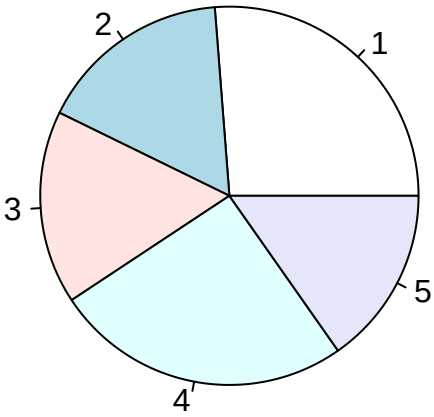
Importing Data

```
rev = read.csv("reviews_info.csv")
bus = read.csv("business_info.csv")
```

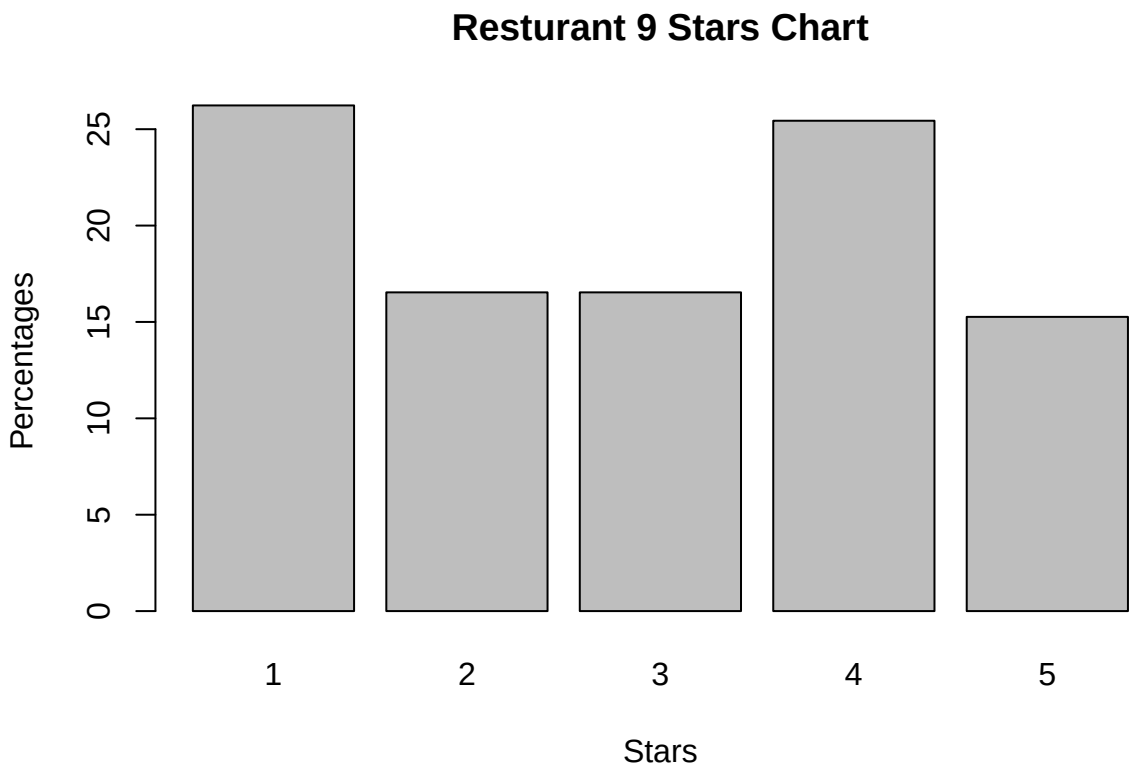
Q2

```
rev_of_9 = rev[rev[,"business_id"] == 9,]
rev_of_61 = rev[rev[,"business_id"] == 61,]

bus_of_9 = bus[bus[,"business_id"] == 9,]
bus_of_61 = bus[bus[,"business_id"] == 61,]

percentages_9 = table(rev_of_9[,"stars"])/sum(table(rev_of_9[,"stars"]))*100

pie(percentages_9, main = "Resturant 9 Stars Chart")
```

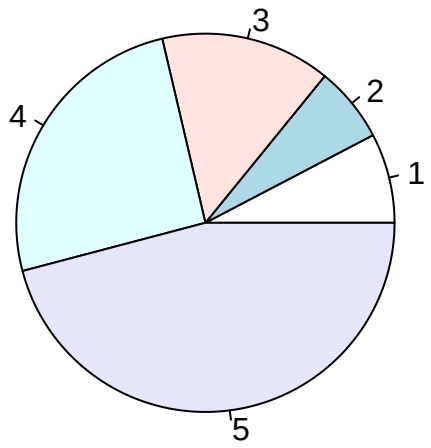
Resturant 9 Stars Chart



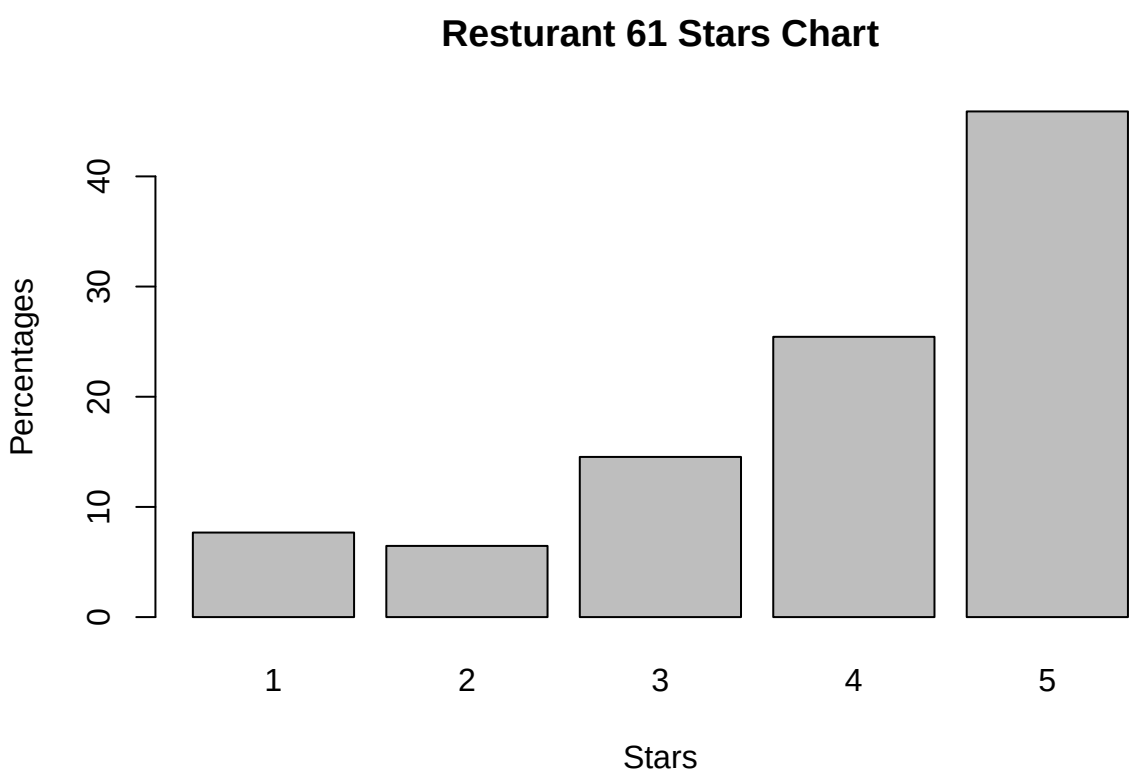

```
barplot(percentages_9, main = "Resturant 9 Stars Chart", ylab = "Percentages", xlab = "Stars")
```




```
percentages_61 = table(rev_of_61[,"stars"])/sum(table(rev_of_61[,"stars"]))*100

pie(percentages_61, main = "Resturant 61 Stars Chart")
```




```
barplot(percentages_61, main = "Resturant 61 Stars Chart", ylab = "Percentages", xlab = "Stars")
```




```
data.frame(percentages_9,percentages_61)[,c(-1,-3)]
```

```
##       Freq    Freq.1
## 1 26.23211  7.671602
## 2 16.53418  6.460296
## 3 16.53418 14.535666
## 4 25.43720 25.437416
## 5 15.26232 45.895020
```

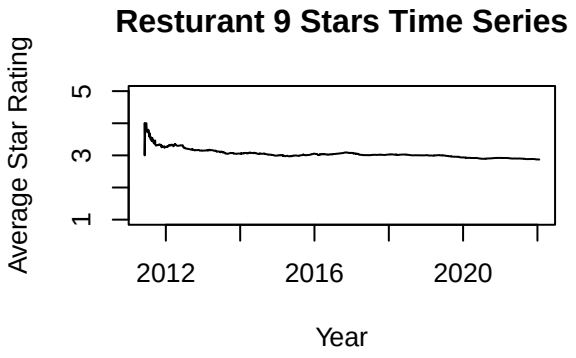
```
#barplot(as.matrix(data.frame(percentages_9,percentages_61)[,c(-1,-3)]), beside = TRUE)
```

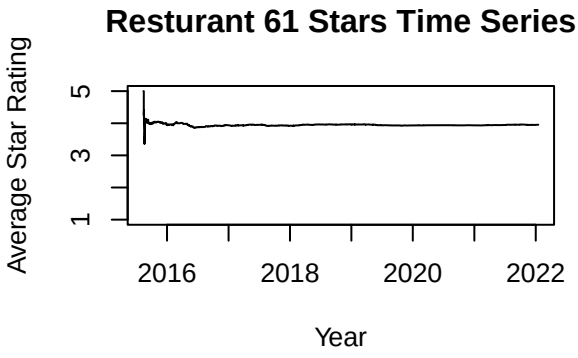
comments

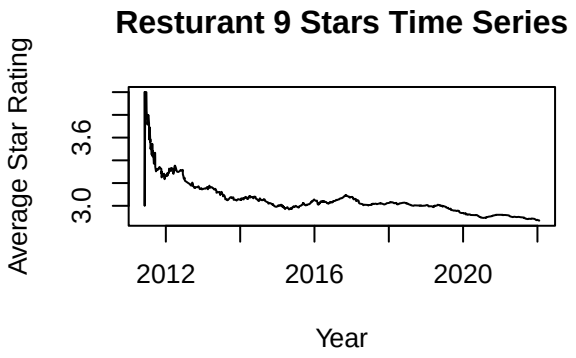
Q3

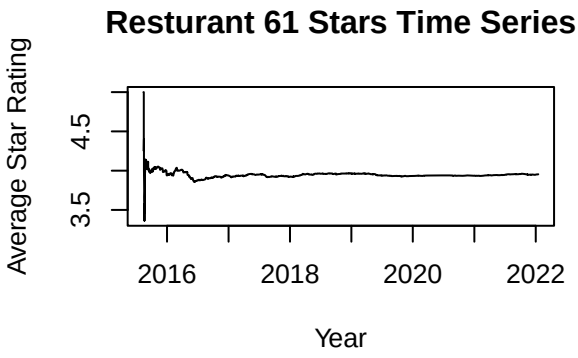
```
rev_of_9 = rev_of_9[order(as.Date(rev_of_9$date, format = "%d/%m/%Y")),]
rev_of_61 = rev_of_61[order(as.Date(rev_of_61$date, format = "%d/%m/%Y")),]

rolling_average = function(data_frame){
  y = c()
  sum = 0
  for (i in 1:nrow(data_frame)){
```

```
    sum = data_frame[i,4] + sum
    y[i] = sum/i
  }
  return (y)
}

par(mfrow=c(2,2))

plot(as.Date(rev_of_9$date, format = "%d/%m/%Y"),rolling_average(rev_of_9) , type= "l", xlab = "Year", y

plot(as.Date(rev_of_61$date, format = "%d/%m/%Y"),rolling_average(rev_of_61) , type= "l", xlab = "Year"

plot(as.Date(rev_of_9$date, format = "%d/%m/%Y"),rolling_average(rev_of_9) , type= "l", xlab = "Year", y

plot(as.Date(rev_of_61$date, format = "%d/%m/%Y"),rolling_average(rev_of_61) , type= "l", xlab = "Year"
```









comments

Q4

```
looking_for_word = "rat"

is_word_in_9 = c("true" = 0, "false" = 0)
```

```
for (string in rev_of_9[,8]){
  if (grepl(looking_for_word, string)){
    is_word_in_9["true"] = is_word_in_9["true"] + 1
  }else{
    is_word_in_9["false"] = is_word_in_9["false"] + 1
  }
}
is_word_in_9
```

```
##  true false
##    86   543
```

```
is_word_in_61 = c("true" = 0, "false" = 0)
for (string in rev_of_61[,8]){
  if (grepl(looking_for_word, string)){
    is_word_in_61["true"] = is_word_in_61["true"] + 1
  }else{
    is_word_in_61["false"] = is_word_in_61["false"] + 1
  }
}
is_word_in_61
```

```
##  true false
##    79   664
```