Shopify Data Challenge

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Getting the data

```
DataSet = read.csv("DataSet.csv", header = TRUE);
```

Calculate the average order value (AOV)

```
AOV = mean(DataSet$order_amount)
print(AOV)
```

[1] 3145.128

AOV of the data seems to be correct, but this doesn't account for the amounts of items purchased, a better metric for this purpose could be the average item value (AIV)

Calculate the average item value

```
#create a new column in the data set for the AIV for each order
DataSet$order_AIV = DataSet$order_amount/DataSet$total_items
#get the average of that new column
AIV = mean(DataSet$order_AIV)
print(AIV)
```

[1] 387.7428

Another important metric would be the amount of orders for each shop to see which shops are the most popular

Calculate the amount of items bought from each shop

```
#create a vector of length 100 with each index representing the shop number
shopFreq = numeric(100)
counter = 1
for (i in DataSet$shop_id){
```

```
shopFreq[i] = shopFreq[i] + DataSet$total_items[counter]
  counter = counter + 1
}
print(shopFreq)
##
                   102
                                 103
                                         92
                                              121
                                                     109
                                                                                  95
                                                                                         93
     [1]
             86
                           99
                                                             84
                                                                   117
                                                                          119
##
    [13]
            136
                   121
                          105
                                  71
                                        100
                                              112
                                                     126
                                                            103
                                                                   100
                                                                           90
                                                                                 112
                                                                                        126
    [25]
##
             86
                    95
                          107
                                  84
                                        118
                                              108
                                                      98
                                                             79
                                                                    87
                                                                           96
                                                                                 104
                                                                                         98
##
    [37]
                    72
                           82
                                  88
                                        127 34063
                                                     107
                                                             71
                                                                   110
                                                                           90
                                                                                  84
                                                                                         83
            115
##
    [49]
            115
                    92
                           89
                                  89
                                        130
                                              104
                                                      92
                                                             69
                                                                   107
                                                                                 121
                                                                                         93
                                                                          109
##
    [61]
            109
                    83
                          113
                                  88
                                        116
                                              103
                                                      77
                                                             88
                                                                   121
                                                                          117
                                                                                 130
                                                                                         89
##
    [73]
                    76
                                  87
                                         90
                                               88
                                                      98
                                                             93
                                                                   128
                                                                                  81
                                                                                        132
            118
                           79
                                                                           83
                                              111
##
    [85]
             67
                   111
                          102
                                 101
                                        118
                                                     110
                                                             76
                                                                   111
                                                                          100
                                                                                  74
                                                                                        110
                                  77
##
    [97]
             96
                   107
                           94
```

We can see from this vector that shop 42 is really popular with 34063 items bought from there. For reference, the second most popular shop sold 136 items. This shows that there is more demand for the shoe sold at shop 42.