

Class_4_Homework

```
library(tidyverse)
library(stringr)
library(lubridate)
```

Reconciling Sales Accounts

Your client asks you to do a Sales Analysis. First they want you to make sure that the Sales Detail and the Sales Header data reconciles. Get the data from SalesOrderDetail and compute `sum(LineTotal)`, grouping by SalesOrderID. Do this 2 ways:

1. Get the data and put that in a dataframe and summarize in the Verse.
2. Summarize in the Database

It should look like:

Description	Value
Total Sales =	708690.2

SalesOrderID	TotalSales
71774	713.796
71776	63.900
71780	29923.008
71782	33319.986
71783	65683.368
71784	89869.276

Now, get the SalesOrderHeader data and subtract the totals by SalesOrderID that you calculated in the last step (*do this in the Verse*). The result should be all zeros (*used `round(,0)`*):

SalesOrderID	SubTotal	TotalSales	Diff
71774	713.796	713.796	0
71776	63.900	63.900	0
71780	29923.008	29923.008	0
71782	33319.986	33319.986	0
71783	65683.368	65683.368	0
71784	89869.276	89869.276	0

You show this to your client, but she doesn't believe it since you compared it in R and she doesn't understand R. So go back and do the same thing, but subtract the totals in SQL, then just put it in a dataframe without manipulation:

SalesOrderID	SubTotal	LineTotal	Diff
71774	713.796	713.796	0
71776	63.900	63.900	0
71780	29923.008	29923.008	0
71782	33319.986	33319.986	0
71783	65683.368	65683.368	0
71784	89869.276	89869.276	0

OK, she's happy. Now she wants you to join the ProductDetail to the Customer to see which company bought what products, and how much.

You'll need to join the SalesDetail to the SalesHeader, and then to the Customer table. It should look like (*use a SQL ORDER BY to see the grouping by customer*):

Description	Value
Total Sales =	708690.2

CompanyName	ProductID	ProductTotal
Action Bicycle Specialists	707	209.9400
Action Bicycle Specialists	708	238.6598
Action Bicycle Specialists	711	41.9880
Action Bicycle Specialists	712	53.9400
Action Bicycle Specialists	714	269.9460
Action Bicycle Specialists	715	239.9520

Finally, she wants to see Sales by Customer, with ALL Customers included (*whether or not they had sales*):

Description	Value
Total Sales =	708690.2

CompanyName	SubTotal
A Bike Store	NA
A Great Bicycle Company	NA
A Typical Bike Shop	NA
Acceptable Sales & Service	NA
Action Bicycle Specialists	89869.28
Active Life Toys	NA