LAB: `dplyr` and `*_join`s

Import `dplyr_join_lab_data.csv` and explore it.

We want to explore, among other things, the classes of purchases made by customer, so we will import join `classes.csv` to our `dplyr_lab_data.csv` data so we might get more descriptive data on purchases.

We can now explore our data and answer some interesting questions.

The categories, ordered by frequency of purchase, arranged in descending order and excluding `NA`s are

Class	Frequency
cleaningSupplies	748
petSupplies	736
homeImprovement	732
pharmacy	726
menClothes	725
outdoor	723
sports	723
grocery	720
automotive	709
paperGoods	694
kidsClothes	693
electronics	676
womenClothes	661

When breaking this down by gender, we observe some interesting and perhaps unexpected results:

Class	Gender	Frequency
sports	Female	390
petSupplies	Female	382
cleaningSupplies	Female	380
pharmacy	Female	379
outdoor	Male	375
homeImprovement	Male	372
cleaningSupplies	Male	368
grocery	Female	368
menClothes	Female	368
automotive	Female	366

Of particular note, it seems that females buy more men's clothing than men do!

Exploring method of purchase, we see that the top three most purchased classes with a credit card are

Class	Frequency
cleaningSupplies	389
petSupplies	374
homeImprovement	373

and without credit cards

Class	Frequency
grocery	377
pharmacy	372
menClothes	371

It turns out that half (49.77% to be precise) of the purchases were made by credit card and the other half were made by other methods (presumably cash). Is there a difference between credit card use for women and men?

Gender	Credit Card Use	Frequency
Female	FALSE	2,772
Female	TRUE	2,685
Male	FALSE	2,622
Male	TRUE	2,649

Not much it seems. Lastly, let's break down purchases by gender and credit card usage to explore total purchase amounts.

Gender	Credit Card Use	Total $ Purchases
Female	FALSE	698,937.7
Female	TRUE	669,638.2
Male	FALSE	655,040.4
Male	TRUE	678,436.2

Lastly, with a little bit of digging, we discover that there is one class of purchases which does not exist in the transaction table, which suggests that this category was, at some point, subsumed by another category, or that this store stopped selling product from this category all together.