Lab 1 Answers

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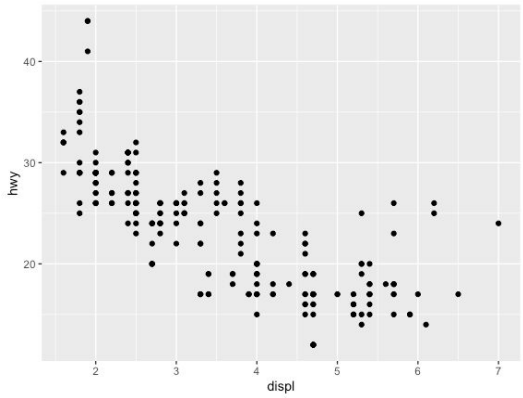
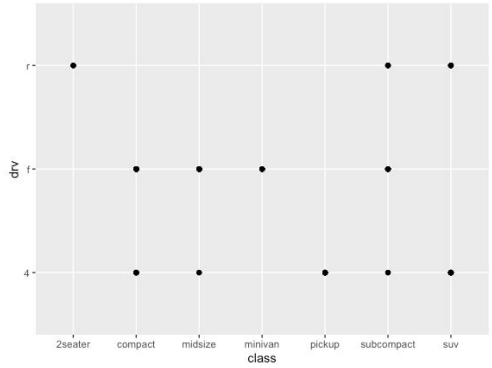
Exercise 1. This plot is does capture the relationship because as the cars

engine size increase, it is less efficient on the highway.The class vs. drv plot is not useful

because

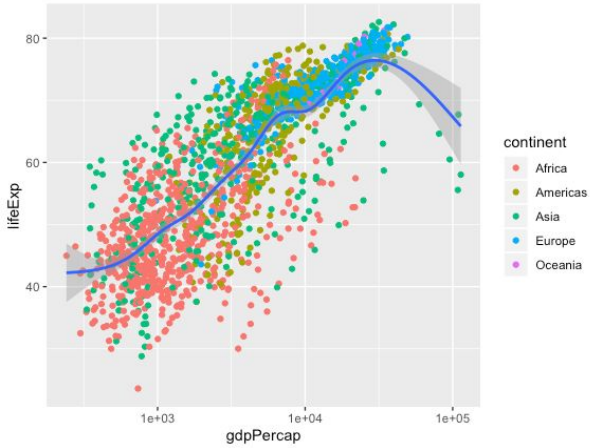
you are comparing two categorical variables against each other.





1b.We can make the conclusion that bigger class cars like Suvs and Pickups have a bigger engine, which causes a lower highway efficiency. The scale x log 10 function helps scale the data so you are able to see all the data points. Without this function, the graph would be a small portion and you would not be able to see the data and relationships between variables. The dollar

function changes to the x axis values to dollar amounts so you are able to see on the graph gdp Percap.



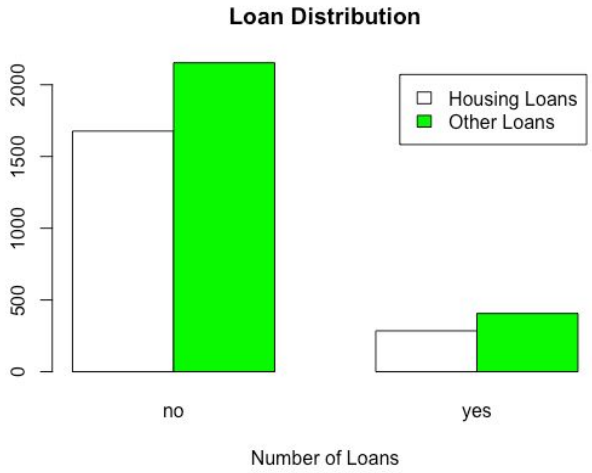
MEMO

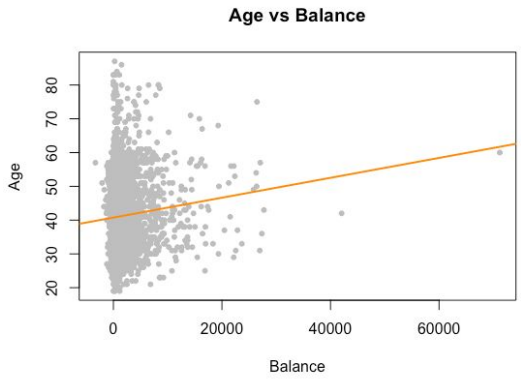
The information that I hope to convey with the first graph is the loan distribution.

The graph shows the amount of people who currently have a loan with the bank.

It also shows if they have a house loan or another type of loan.

With this knowledge you can look at the loans policies to see if you can create a way for people to take more loans. By changing the policies you can increase the frequency of clients borrowing.The next graph is a regression between the age of the person of the account and their balance. The line of best fit trends upwards which means as age increases balance will also increase as well. This trend gives you basic knowledge about your account owners and the trend of balances increasing as time goes along.


Loan Distribution
Housing Loans
Other Loans
0
500
1000
1500
2000
no
yes
Number of Loans


Age vs Balance
Age
20
30
40
50
60
70
80
0
20000
40000
60000
Balance