Class Assignment: MPG tables and charts

MA615

September 16, 2019

Using the tidyverse (especially dplyr) for MPG

Recall assignment:

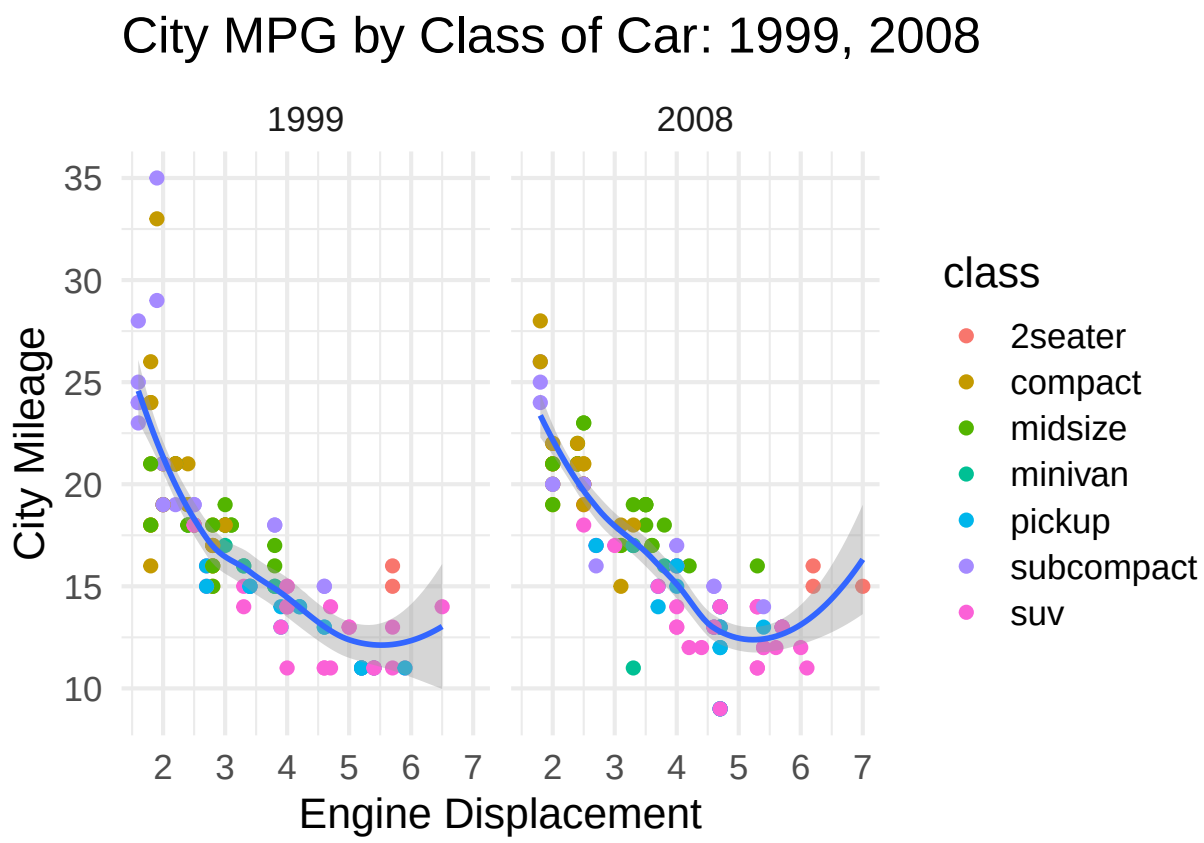
Tables should include a comparison of city and highway mileage by the class of car and the best three car models for city and highway mileage for all the years in which data is available.

Plot the data displaying as much of the data as you can. Put continuous variables on the axes and include a locally smoothed regression line to show the relationship with mileage. Also make a box plot comparing city and highway MPG by class of car.

Tables

The next table is a bit tricky.

```
## `geom_smooth()` using method = 'loess' and formula 'y ~ x'
```



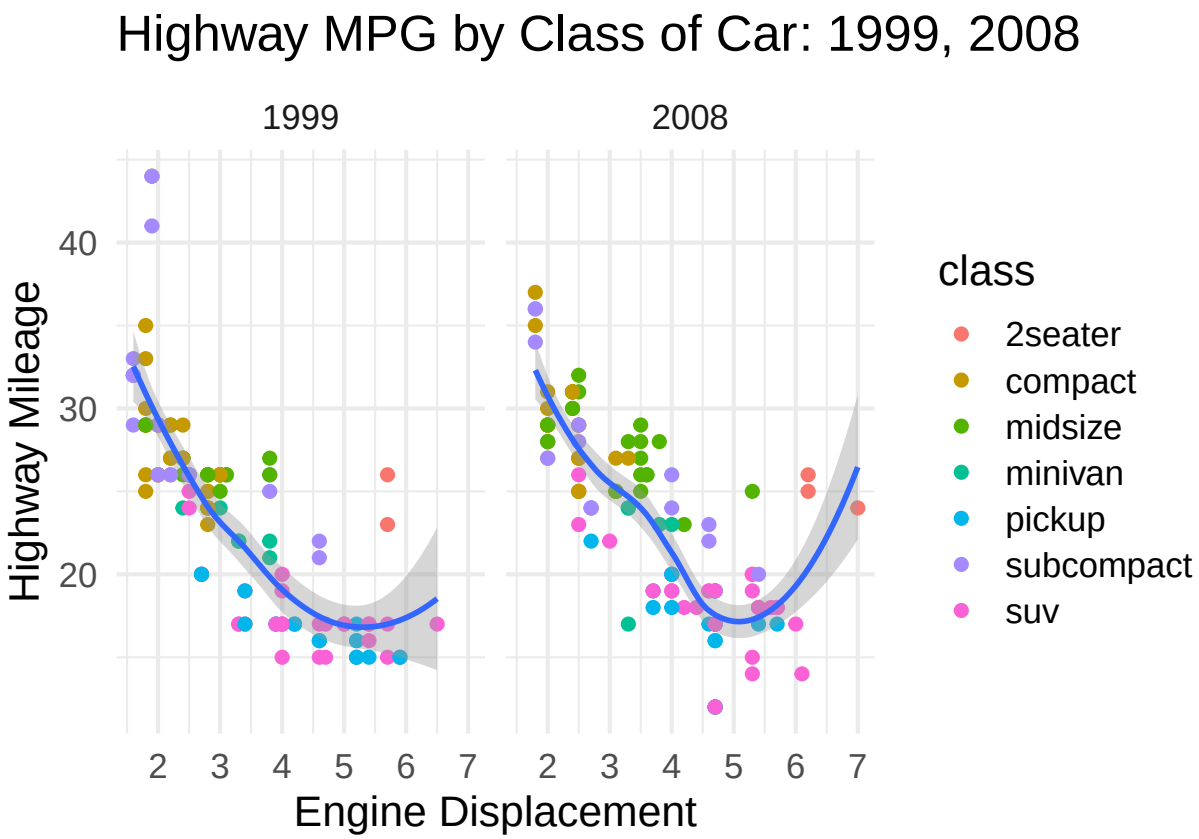

```
## `geom_smooth()` using method = 'loess' and formula 'y ~ x'
```

Table 1: Mean City and Highway MPG by Car Class

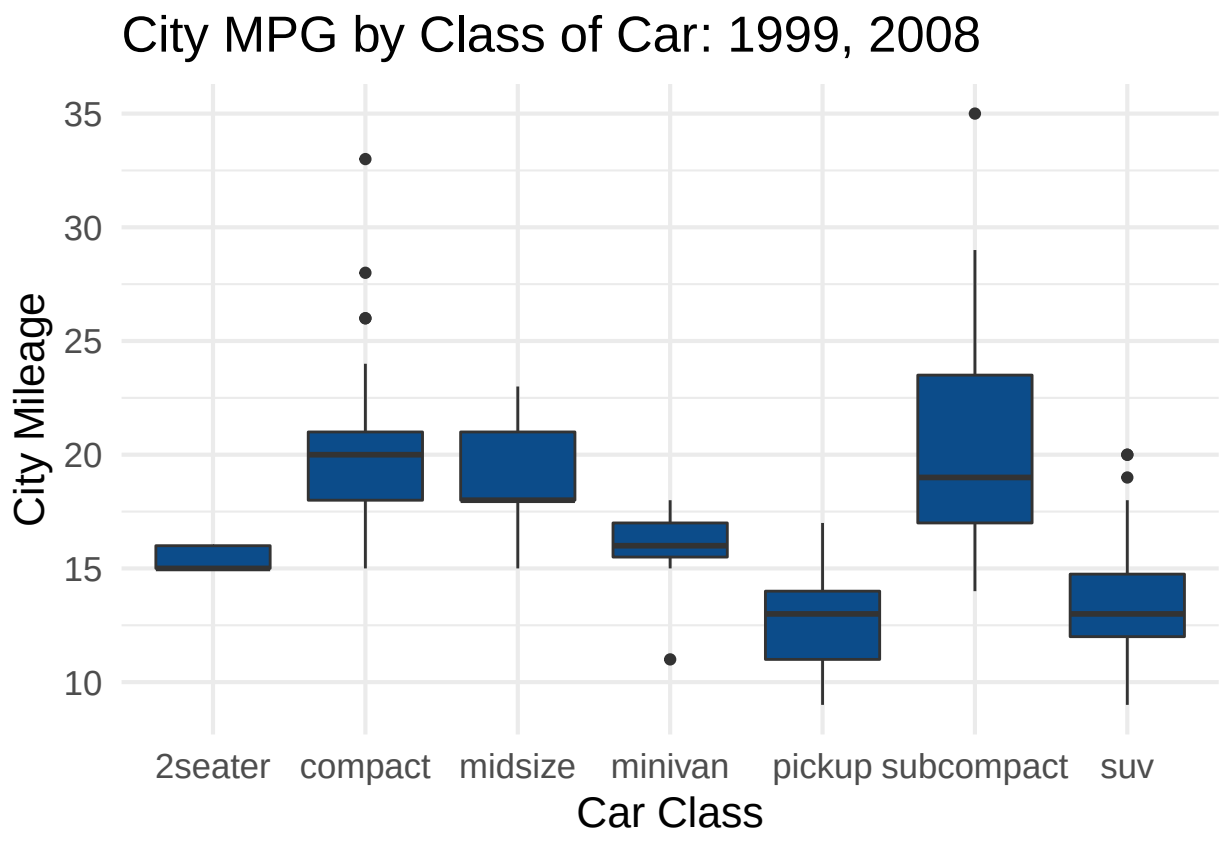
Class	City	Highway
compact	20.13	28.3
midsize	18.76	27.29
suv	13.5	18.13
2seater	15.4	24.8
minivan	15.82	22.36
pickup	13	16.88
subcompact	20.37	28.14

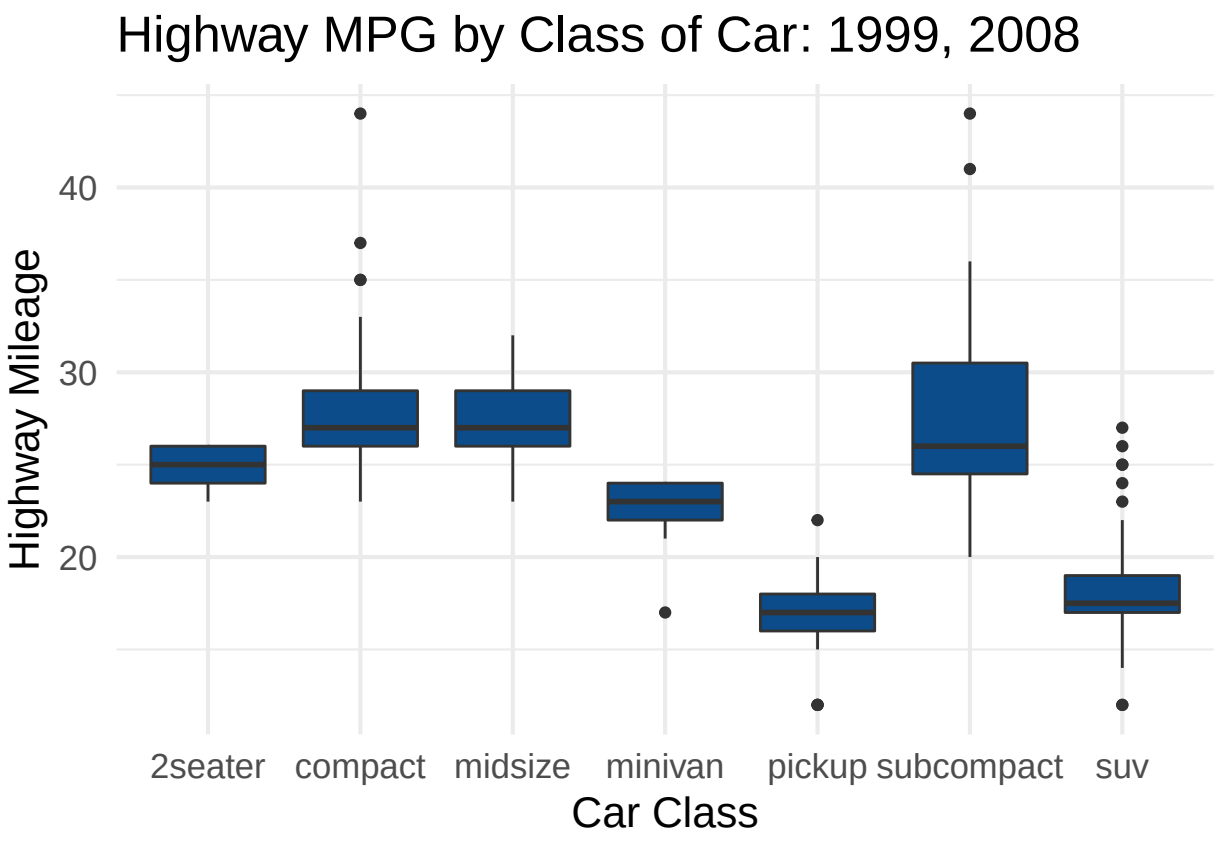
Table 2: Top 3 MPG Performing Cars: 1999, 2008

City 1999		Highway 1999		City 2008		Highway 2008	
Model	Milage	Model	Milage	Model	Milage	Model	Milage
new beetle	26.0	new beetle	35.0	corolla	27.0	corolla	36.0
civic	24.8	corolla	32.7	civic	24.0	civic	33.8
corolla	24.7	civic	31.6	gti	21.5	camry	30.0



Boxplots


City MPG by Class of Car: 1999, 2008
City Mileage
35
30
25
20
15
10
2seater
compact
midsize
minivan
pickup
subcompact
suv
Car Class


Highway MPG by Class of Car: 1999, 2008
Highway Mileage
40
30
20
2seater
compact
midsize
minivan
pickup
subcompact
suv
Car Class