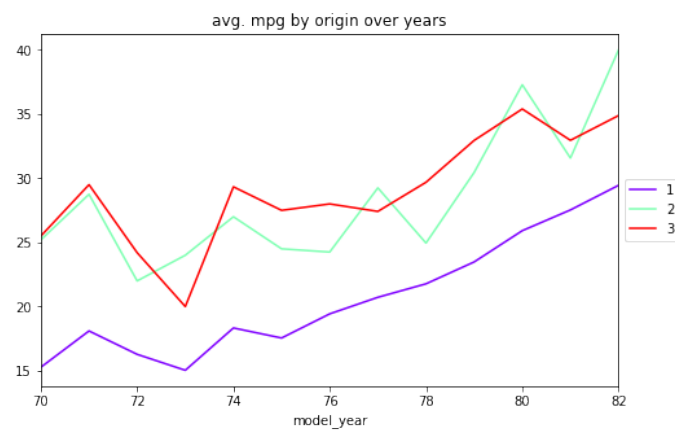


Assignment 3

1. Analyze mpg by plotting

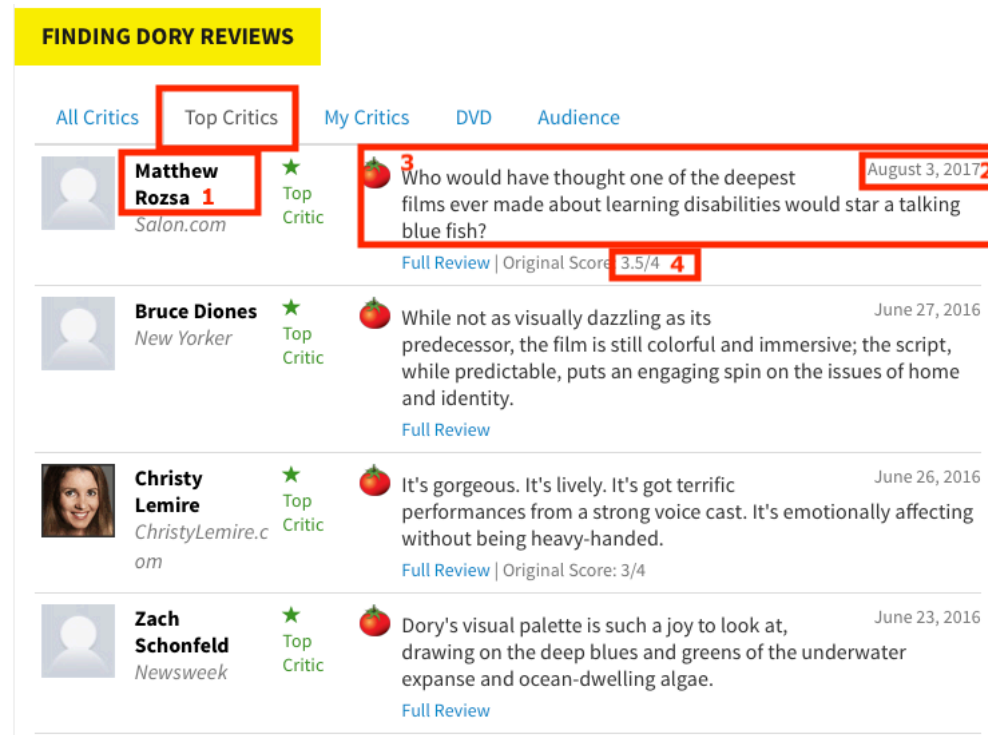
- Create a function `mpg_plot` to do the following:
 - Read the `auto-mpg.csv`
 - Plot a line chart (with multiple lines) to show the mpg trend over the years by origin. Your plot will be similar to the figure below.



- This function does not have any return. **Make sure that you have `plt.show()` after plotting statement** so that the figure can be displayed even if you execute the code from a command line.

2. Scrape Movie Reviews

- Choose one of your favorite movies and find this id of this movie at rottentomatoes.com (e.g. https://www.rottentomatoes.com/m/finding_dory/reviews/?type=top_critics (https://www.rottentomatoes.com/m/finding_dory/reviews/?type=top_critics))
- Write a function to scrape all **topic critics**, including, **reviewer's name** (see (1) in Figure), **review date** (see (2) in Figure), **review description** (see (3) in Figure), and **score** (see (4) in Figure).
 - Input: movie id in rottentomatoes
 - Output: all reviews in "top critics" as a list of tuples (reviewer, date, description, score)



- Test your function with a few movies to make your function is generic enough
- Follow the reference code structure below and save your script as .py file and submit to Canvas

In []:

```
1 import requests
2 from bs4 import BeautifulSoup
3
4 import matplotlib.pyplot as plt
5
6 def mpg_plot():
7
8     # put your code here
9
10    plt.show()
11
12 def getReviews(movie_id):
13
14    reviews=[] # variable to hold all reviews
15
16    page_url="https://www.rottentomatoes.com/m/"+movie_id+"/reviews/?type=top_critics"
17
18    page = requests.get(page_url)
19
20    if page.status_code==200:
21
22        # insert your code to process page content
23
24
25    return reviews
26
27
28
```

In []:

```
1 # best practice to test your class
2 # if your script is exported as a module,
3 # the following part is ignored
4 # this is equivalent to main() in Java
5
6 if __name__ == "__main__":
7
8     mpg_plot()
9
10    movie_id='finding_dory'
11    reviews=getReviews(movie_id)
12    print(reviews)
```