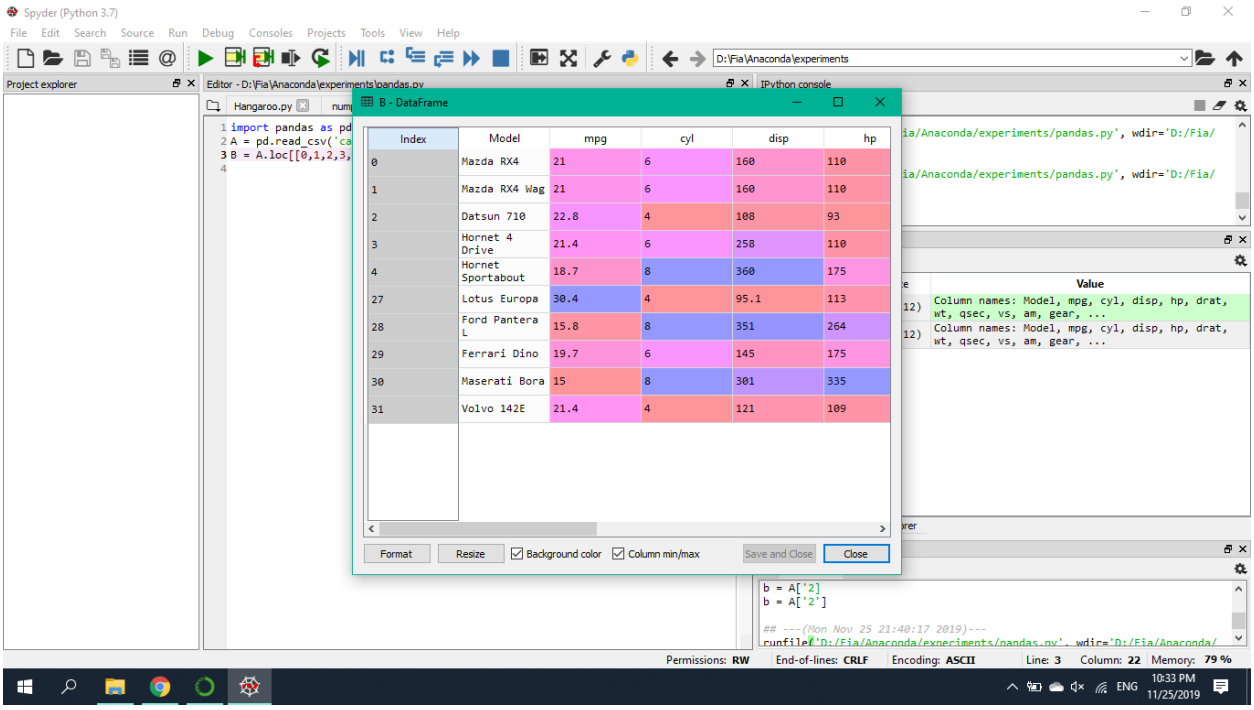
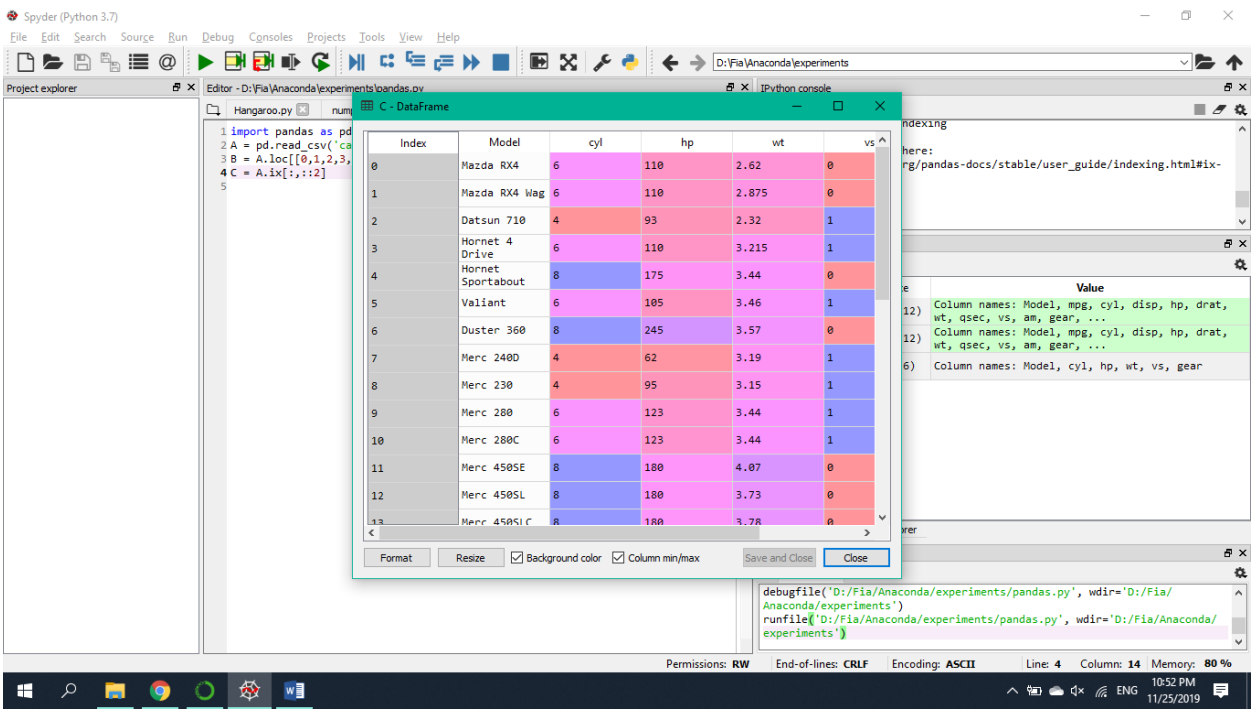
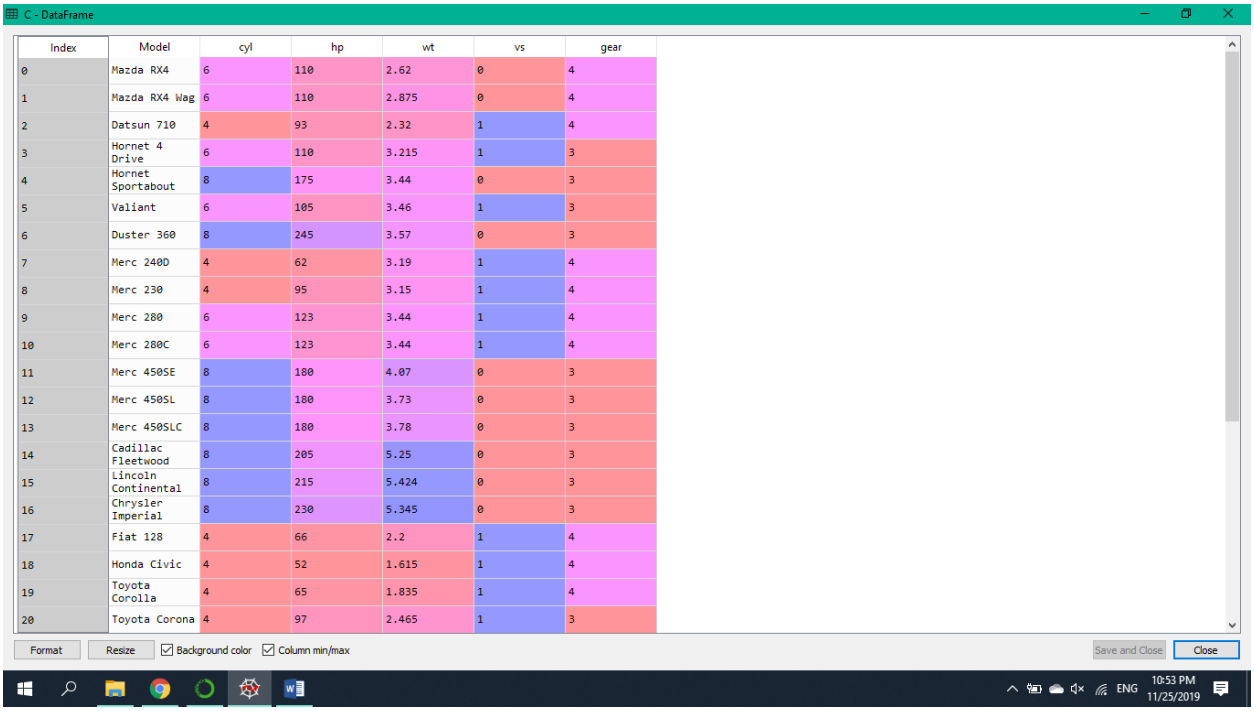
Problem 1:



Problem 2:

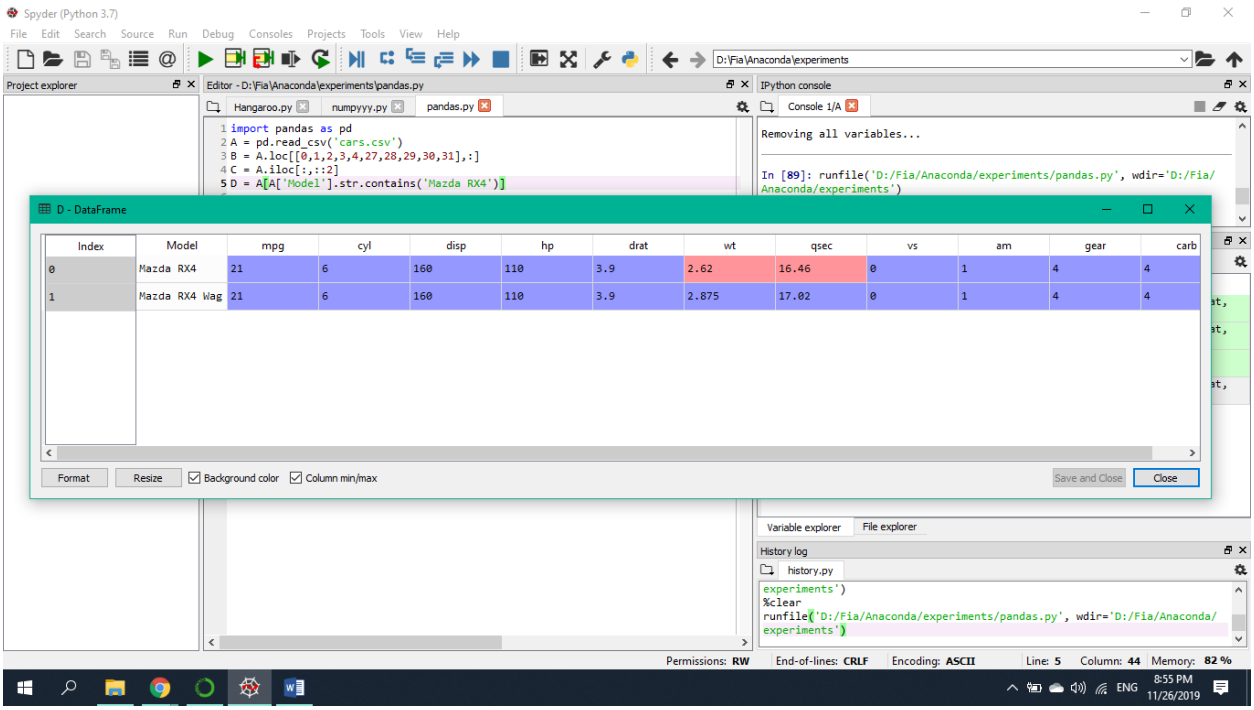
a.





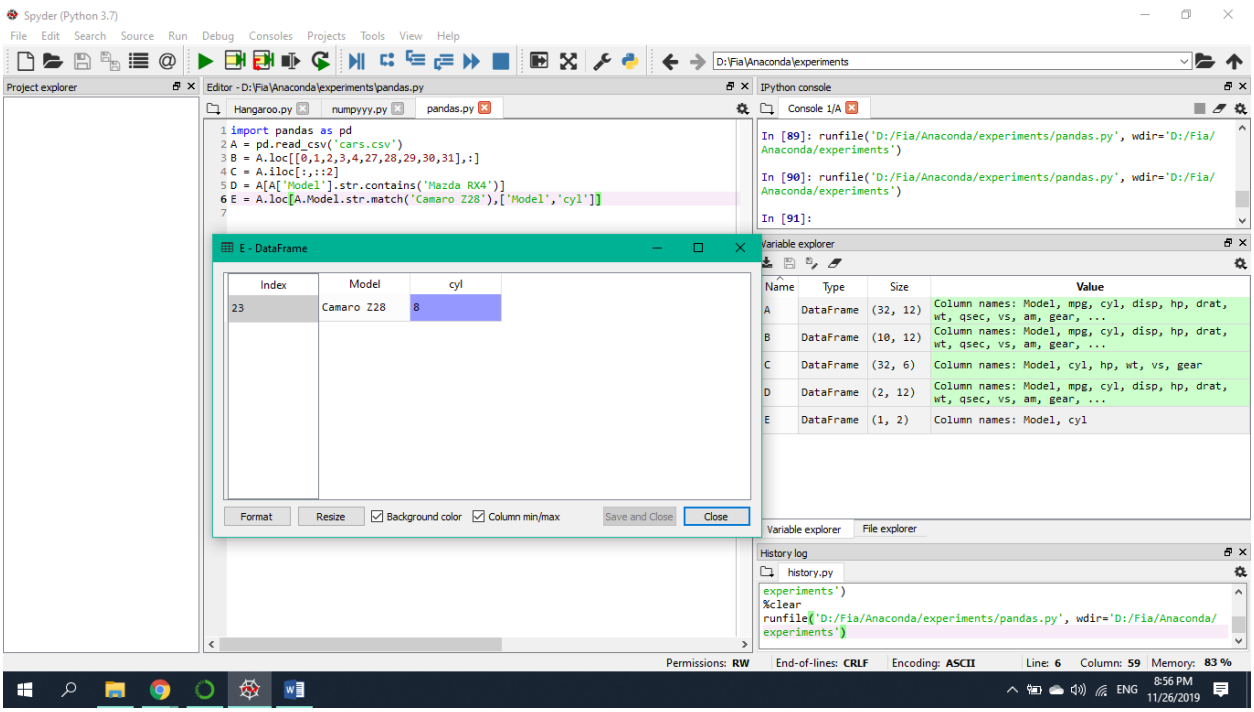
Index	Model	cyl	hp	wt	vs	gear
0	Mazda RX4	6	110	2.62	0	4
1	Mazda RX4 Wag	6	110	2.875	0	4
2	Datsun 710	4	93	2.32	1	4
3	Hornet 4 Drive	6	110	3.215	1	3
4	Hornet Sportabout	8	175	3.44	0	3
5	Valiant	6	105	3.46	1	3
6	Duster 360	8	245	3.57	0	3
7	Merc 240D	4	62	3.19	1	4
8	Merc 230	4	95	3.15	1	4
9	Merc 280	6	123	3.44	1	4
10	Merc 280C	6	123	3.44	1	4
11	Merc 450SE	8	180	4.07	0	3
12	Merc 450SL	8	180	3.73	0	3
13	Merc 450SLC	8	180	3.78	0	3
14	Cadillac Fleetwood	8	205	5.25	0	3
15	Lincoln Continental	8	215	5.424	0	3
16	Chrysler Imperial	8	230	5.345	0	3
17	Fiat 128	4	66	2.2	1	4
18	Honda Civic	4	52	1.615	1	4
19	Toyota Corolla	4	65	1.835	1	4
20	Toyota Corona	4	97	2.465	1	3

b.

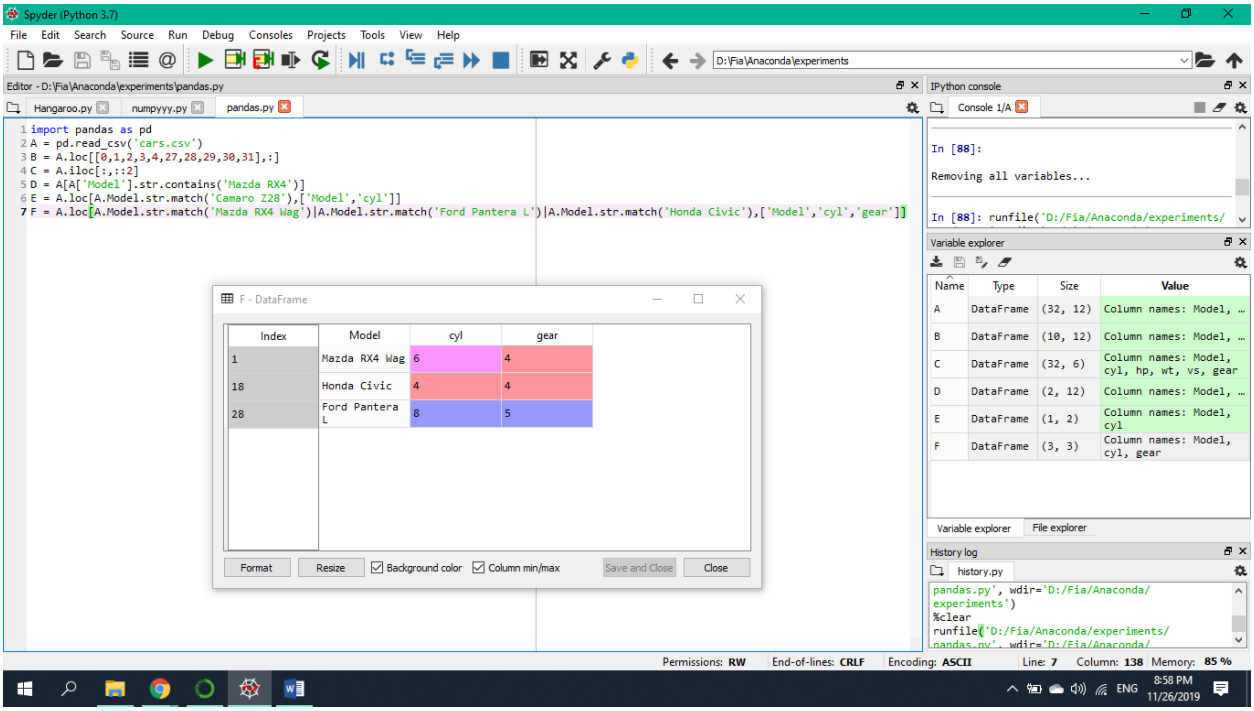


Index	Model	mpg	cyl	disp	hp	drat	wt	qsec	vs	am	gear	carb
0	Mazda RX4	21	6	160	110	3.9	2.62	16.46	0	1	4	4
1	Mazda RX4 Wag	21	6	160	110	3.9	2.875	17.02	0	1	4	4

c.


Spyder (Python 3.7)
File Edit Search Source Run Debug Consoles Projects Tools View Help
Project explorer
Editor - D:\Fia\Anaconda\experiments\pandas.py
Hangaroo.py
numpyyy.py
pandas.py
1 import pandas as pd
2 A = pd.read_csv('cars.csv')
3 B = A.loc[[0,1,2,3,4,27,28,29,30,31],:]
4 C = A.iloc[:,::2]
5 D = A[A['Model'].str.contains('Mazda RX4')]
6 E = A.loc[A.Model.str.match('Camaro Z28'),['Model','cyl']]
7
E - DataFrame
Index Model cyl
23 Camaro Z28 8
Format Resize Background color Column min/max Save and Close Close
IPython console
Console 1/A
In [89]: runfile('D:/Fia/Anaconda/experiments/pandas.py', wdir='D:/Fia/Anaconda/experiments')
In [90]: runfile('D:/Fia/Anaconda/experiments/pandas.py', wdir='D:/Fia/Anaconda/experiments')
In [91]:
Variable explorer
Name Type Size Value
A DataFrame (32, 12) Column names: Model, mpg, cyl, disp, hp, drat, wt, qsec, vs, am, gear, ...
B DataFrame (10, 12) Column names: Model, mpg, cyl, disp, hp, drat, wt, qsec, vs, am, gear, ...
C DataFrame (32, 6) Column names: Model, cyl, hp, wt, vs, gear
D DataFrame (2, 12) Column names: Model, mpg, cyl, disp, hp, drat, wt, qsec, vs, am, gear, ...
E DataFrame (1, 2) Column names: Model, cyl
Variable explorer File explorer
History log
history.py
experiments')
%clear
runfile('D:/Fia/Anaconda/experiments/pandas.py', wdir='D:/Fia/Anaconda/experiments')
Permissions: RW End-of-lines: CRLF Encoding: ASCII Line: 6 Column: 59 Memory: 83 %
ENG 8:56 PM 11/26/2019

d.


Spyder (Python 3.7)
File Edit Search Source Run Debug Consoles Projects Tools View Help
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3 B = A.loc[[0,1,2,3,4,27,28,29,30,31],:]
4 C = A.iloc[:,::2]
5 D = A[A['Model'].str.contains('Mazda RX4')]
6 E = A.loc[A.Model.str.match('Camaro Z28'),['Model','cyl']]
7 F = A.loc[A.Model.str.match('Mazda RX4 Wag')|A.Model.str.match('Ford Pantera L')|A.Model.str.match('Honda Civic'),['Model','cyl','gear']]
F - DataFrame
Index Model cyl gear
1 Mazda RX4 Wag 6 4
18 Honda Civic 4 4
28 Ford Pantera L 8 5
Format Resize Background color Column min/max Save and Close Close
IPython console
Console 1/A
In [88]:
Removing all variables...
In [88]: runfile('D:/Fia/Anaconda/experiments/
Variable explorer
Name Type Size Value
A DataFrame (32, 12) Column names: Model, ...
B DataFrame (10, 12) Column names: Model, ...
C DataFrame (32, 6) Column names: Model, cyl, hp, wt, vs, gear
D DataFrame (2, 12) Column names: Model, ...
E DataFrame (1, 2) Column names: Model, cyl
F DataFrame (3, 3) Column names: Model, cyl, gear
Variable explorer File explorer
History log
history.py
pandas.py', wdir='D:/Fia/Anaconda/experiments')
%clear
runfile('D:/Fia/Anaconda/experiments/pandas.py', wdir='D:/Fia/Anaconda/
Permissions: RW End-of-lines: CRLF Encoding: ASCII Line: 7 Column: 138 Memory: 85 %
ENG 8:58 PM 11/26/2019