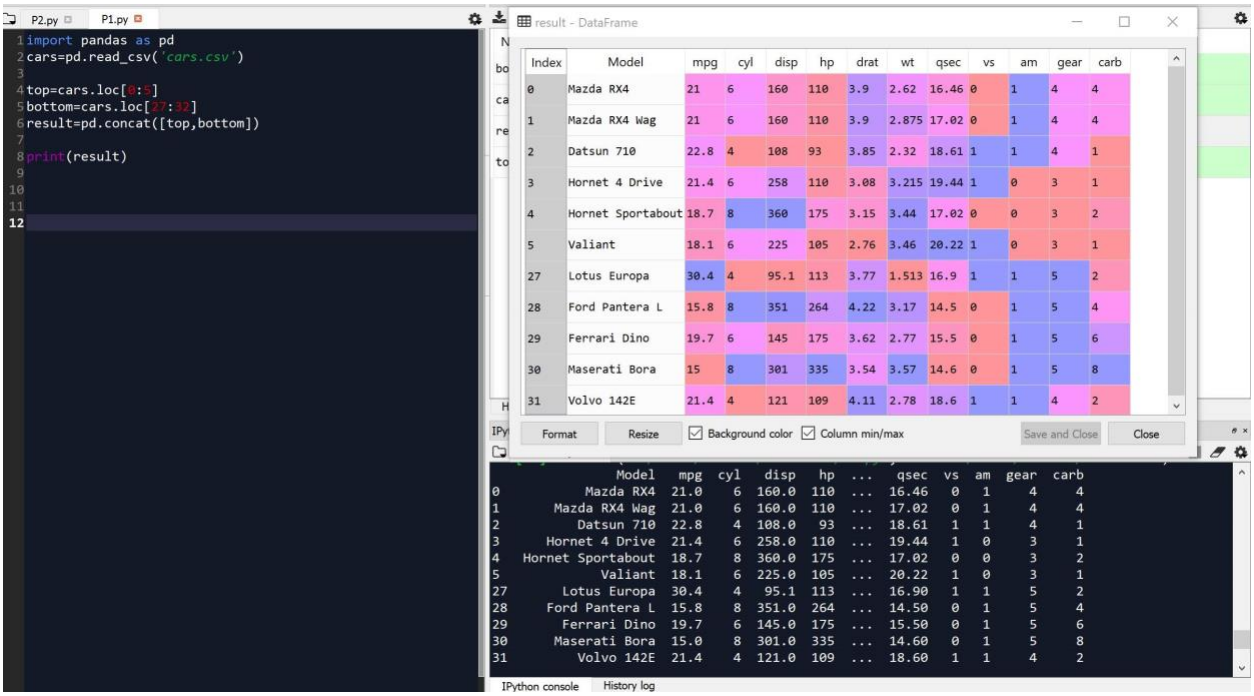
CARPIO, Martin Louie
2ECE-D

## PROBLEM 1



```
import pandas as pd
cars=pd.read_csv('cars.csv')

top=cars.loc[0:5]
bottom=cars.loc[27:32]
result=pd.concat([top,bottom])

print(result)
```

result - DataFrame

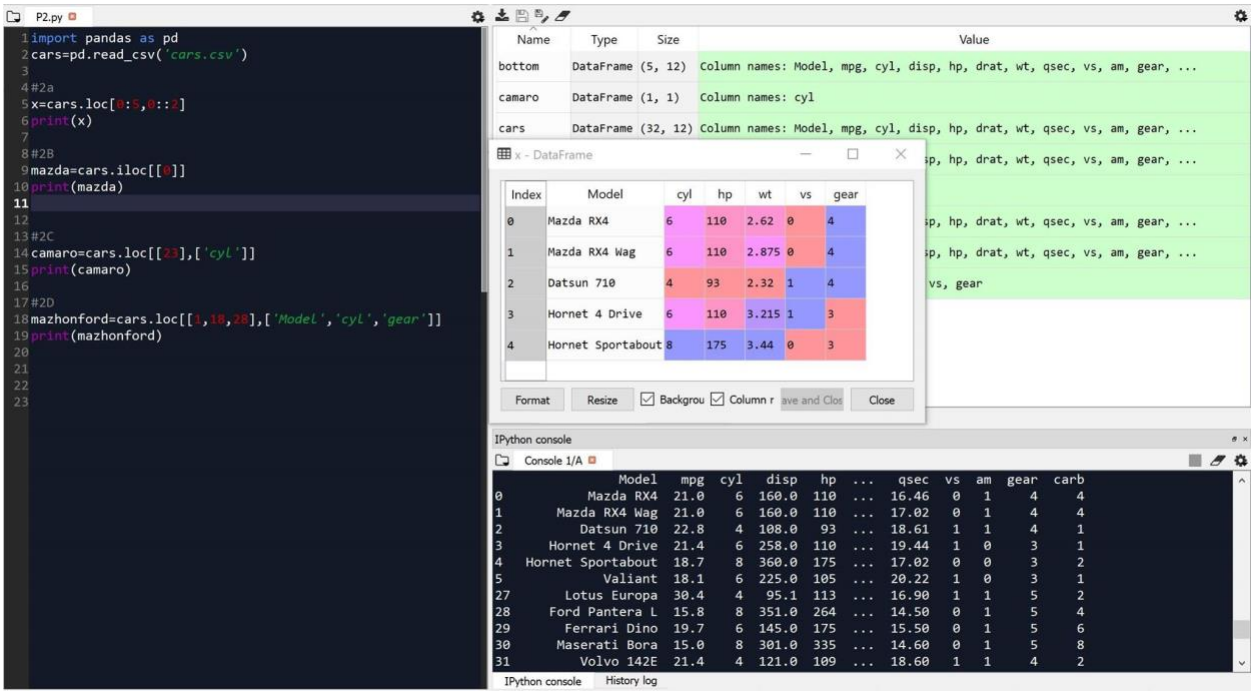
| Index | Model | mpg | cyl | disp | hp | drat | wt | qsec | vs | am | gear | carb |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | Mazda RX4 | 21 | 6 | 160 | 110 | 3.9 | 2.62 | 16.46 | 0 | 1 | 4 | 4 |
| 1 | Mazda RX4 Wag | 21 | 6 | 160 | 110 | 3.9 | 2.875 | 17.02 | 0 | 1 | 4 | 4 |
| 2 | Datsun 710 | 22.8 | 4 | 108 | 93 | 3.85 | 2.32 | 18.61 | 1 | 1 | 4 | 1 |
| 3 | Hornet 4 Drive | 21.4 | 6 | 258 | 110 | 3.08 | 3.215 | 19.44 | 1 | 0 | 3 | 1 |
| 4 | Hornet Sportabout | 18.7 | 8 | 360 | 175 | 3.15 | 3.44 | 17.02 | 0 | 0 | 3 | 2 |
| 5 | Valiant | 18.1 | 6 | 225 | 105 | 2.76 | 3.46 | 20.22 | 1 | 0 | 3 | 1 |
| 27 | Lotus Europa | 30.4 | 4 | 95.1 | 113 | 3.77 | 1.513 | 16.9 | 1 | 1 | 5 | 2 |
| 28 | Ford Pantera L | 15.8 | 8 | 351 | 264 | 4.22 | 3.17 | 14.5 | 0 | 1 | 5 | 4 |
| 29 | Ferrari Dino | 19.7 | 6 | 145 | 175 | 3.62 | 2.77 | 15.5 | 0 | 1 | 5 | 6 |
| 30 | Maserati Bora | 15 | 8 | 301 | 335 | 3.54 | 3.57 | 14.6 | 0 | 1 | 5 | 8 |
| 31 | Volvo 142E | 21.4 | 4 | 121 | 109 | 4.11 | 2.78 | 18.6 | 1 | 1 | 4 | 2 |

Format | Resize | Background color | Column min/max | Save and Close | Close

```
                Model   mpg  cyl   disp   hp  ...   qsec  vs  am  gear  carb
0           Mazda RX4  21.0    6  160.0  110  ...  16.46   0   1     4     4
1       Mazda RX4 Wag  21.0    6  160.0  110  ...  17.02   0   1     4     4
2          Datsun 710  22.8    4  108.0   93  ...  18.61   1   1     4     1
3      Hornet 4 Drive  21.4    6  258.0  110  ...  19.44   1   0     3     1
4   Hornet Sportabout  18.7    8  360.0  175  ...  17.02   0   0     3     2
5             Valiant  18.1    6  225.0  105  ...  20.22   1   0     3     1
27        Lotus Europa  30.4    4   95.1  113  ...  16.90   1   1     5     2
28      Ford Pantera L  15.8    8  351.0  264  ...  14.50   0   1     5     4
29        Ferrari Dino  19.7    6  145.0  175  ...  15.50   0   1     5     6
30       Maserati Bora  15.0    8  301.0  335  ...  14.60   0   1     5     8
31          Volvo 142E  21.4    4  121.0  109  ...  18.60   1   1     4     2
```

IPython console | History log

## PROBLEM 2A



```
import pandas as pd
cars=pd.read_csv('cars.csv')

#2a
x=cars.loc[0:5,0::2]
print(x)

#2B
mazda=cars.iloc[[0]]
print(mazda)

#2C
camaro=cars.loc[[23],['cyl']]
print(camaro)

#2D
mazhonford=cars.loc[[1,18,28],['Model','cyl','gear']]
print(mazhonford)
```

| Name | Type | Size | Value |
|---|---|---|---|
| bottom | DataFrame | (5, 12) | Column names: Model, mpg, cyl, disp, hp, drat, wt, qsec, vs, am, gear, ... |
| camaro | DataFrame | (1, 1) | Column names: cyl |
| cars | DataFrame | (32, 12) | Column names: Model, mpg, cyl, disp, hp, drat, wt, qsec, vs, am, gear, ... |

x - DataFrame

| 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 |

Format | Resize | Backgrou | Column r | ave and Clos | Close

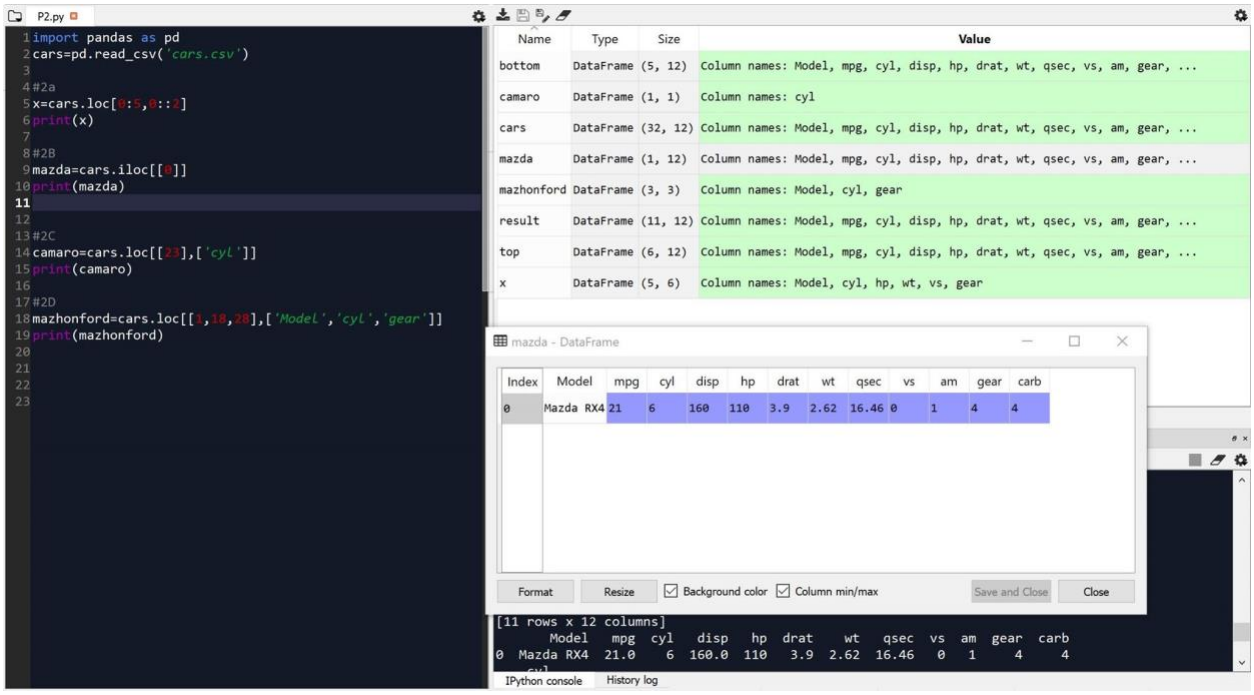
IPython console

Console 1/A

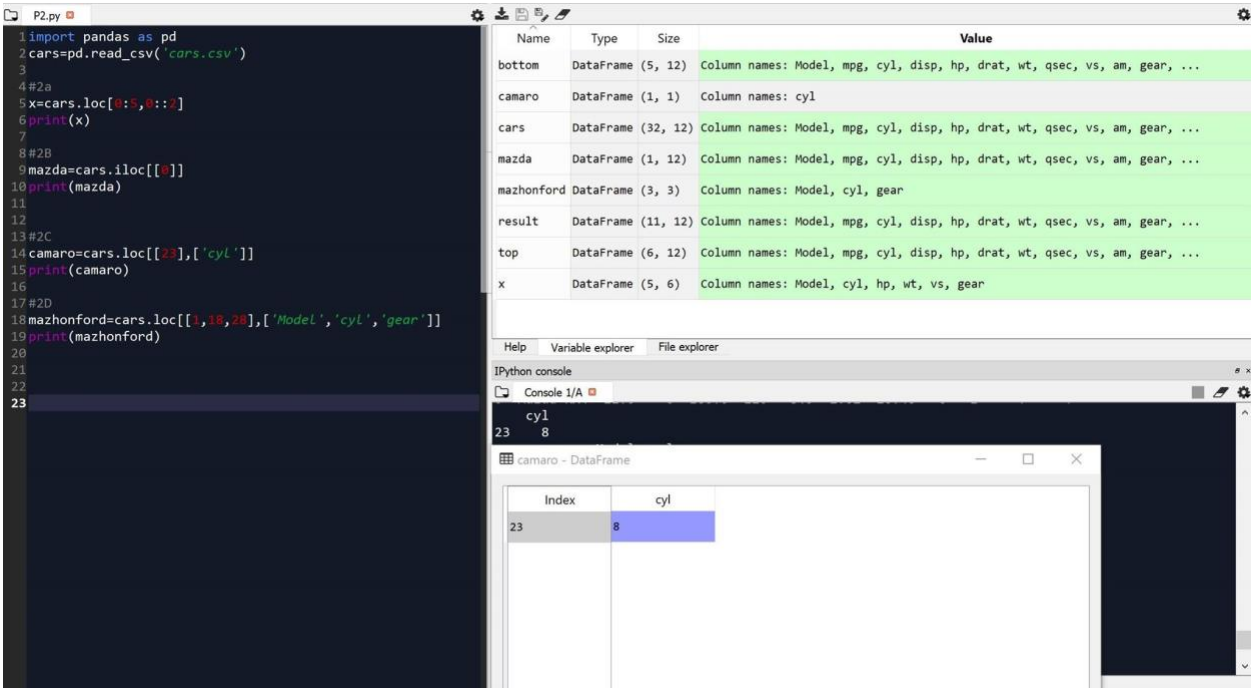
```
                Model   mpg  cyl   disp   hp  ...   qsec  vs  am  gear  carb
0           Mazda RX4  21.0    6  160.0  110  ...  16.46   0   1     4     4
1       Mazda RX4 Wag  21.0    6  160.0  110  ...  17.02   0   1     4     4
2          Datsun 710  22.8    4  108.0   93  ...  18.61   1   1     4     1
3      Hornet 4 Drive  21.4    6  258.0  110  ...  19.44   1   0     3     1
4   Hornet Sportabout  18.7    8  360.0  175  ...  17.02   0   0     3     2
5             Valiant  18.1    6  225.0  105  ...  20.22   1   0     3     1
27        Lotus Europa  30.4    4   95.1  113  ...  16.90   1   1     5     2
28      Ford Pantera L  15.8    8  351.0  264  ...  14.50   0   1     5     4
29        Ferrari Dino  19.7    6  145.0  175  ...  15.50   0   1     5     6
30       Maserati Bora  15.0    8  301.0  335  ...  14.60   0   1     5     8
31          Volvo 142E  21.4    4  121.0  109  ...  18.60   1   1     4     2
```

IPython console | History log

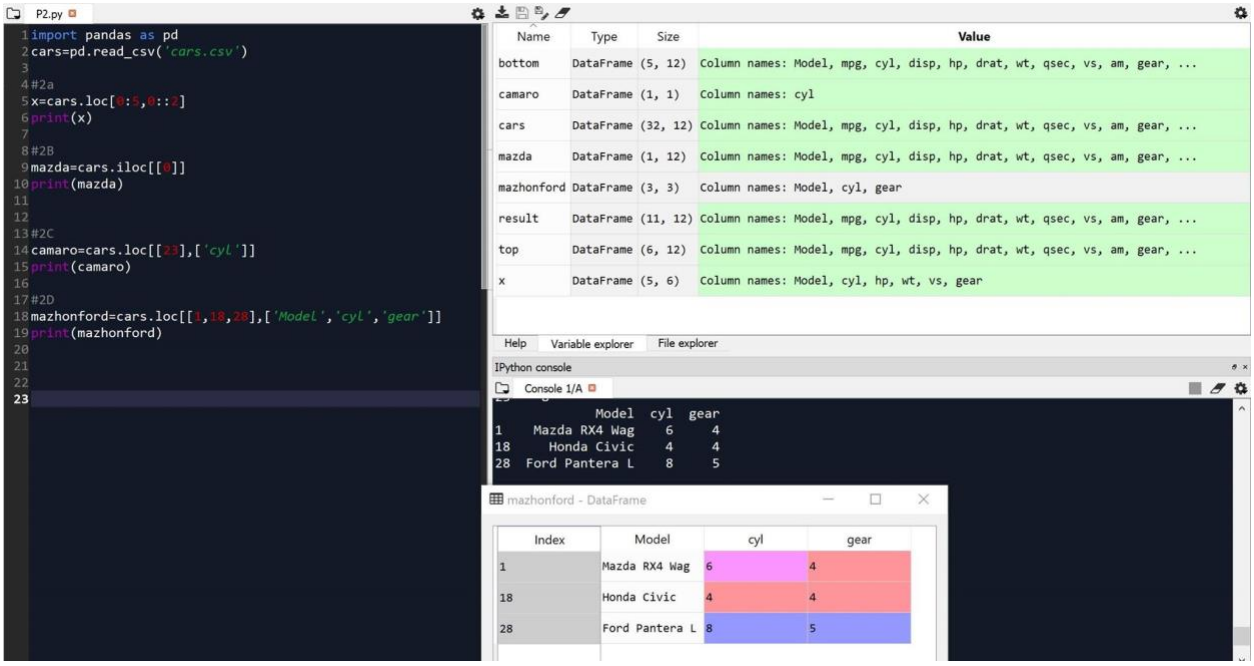
PROBLEM 2B




PROBLEM 2C



PROBLEM 2D


P2.py
1 import pandas as pd
2 cars=pd.read_csv('cars.csv')
3
4 #2a
5 x=cars.loc[0:8,0::2]
6 print(x)
7
8 #2B
9 mazda=cars.iloc[[0]]
10 print(mazda)
11
12
13 #2C
14 camaro=cars.loc[[23],['cyl']]
15 print(camaro)
16
17 #2D
18 mazhonford=cars.loc[[1,18,28],['Model','cyl','gear']]
19 print(mazhonford)
20
21
22
23
Name Type Size Value
bottom DataFrame (5, 12) Column names: Model, mpg, cyl, disp, hp, drat, wt, qsec, vs, am, gear, ...
camaro DataFrame (1, 1) Column names: cyl
cars DataFrame (32, 12) Column names: Model, mpg, cyl, disp, hp, drat, wt, qsec, vs, am, gear, ...
mazda DataFrame (1, 12) Column names: Model, mpg, cyl, disp, hp, drat, wt, qsec, vs, am, gear, ...
mazhonford DataFrame (3, 3) Column names: Model, cyl, gear
result DataFrame (11, 12) Column names: Model, mpg, cyl, disp, hp, drat, wt, qsec, vs, am, gear, ...
top DataFrame (6, 12) Column names: Model, mpg, cyl, disp, hp, drat, wt, qsec, vs, am, gear, ...
x DataFrame (5, 6) Column names: Model, cyl, hp, wt, vs, gear
Help Variable explorer File explorer
IPython console
Console 1/A
Model cyl gear
1 Mazda RX4 Wag 6 4
18 Honda Civic 4 4
28 Ford Pantera L 8 5
mazhonford - DataFrame
Index Model cyl gear
1 Mazda RX4 Wag 6 4
18 Honda Civic 4 4
28 Ford Pantera L 8 5