Untitled

July 15, 2019

[13]:
```
import pandas as pd
import numpy as np
```

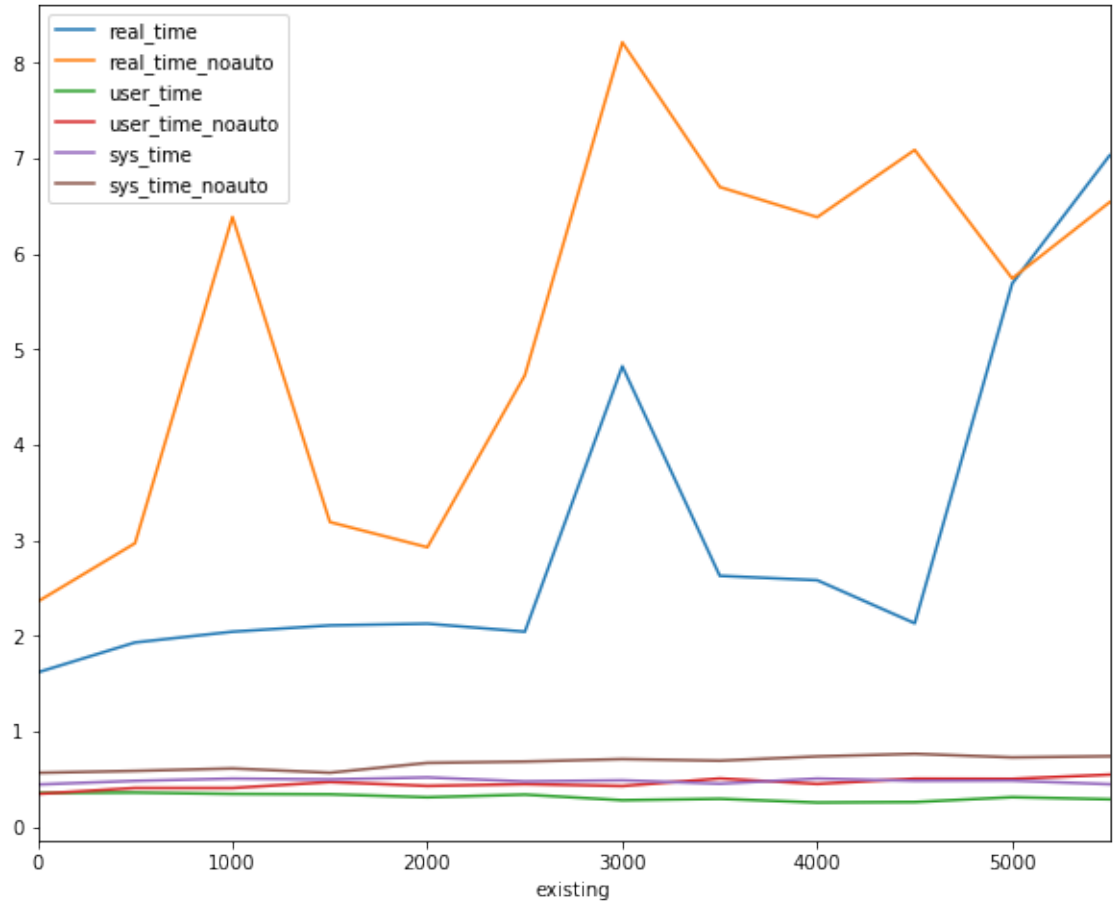
[51]:
```
def convert_time(time_str):
    """Converts time string in the format of #m#.###s to seconds"""
    min_sec = time_str.split('m')
    min_sec[1] = min_sec[1][:-1]
    return 60 * float(min_sec[0]) + float(min_sec[1])
```

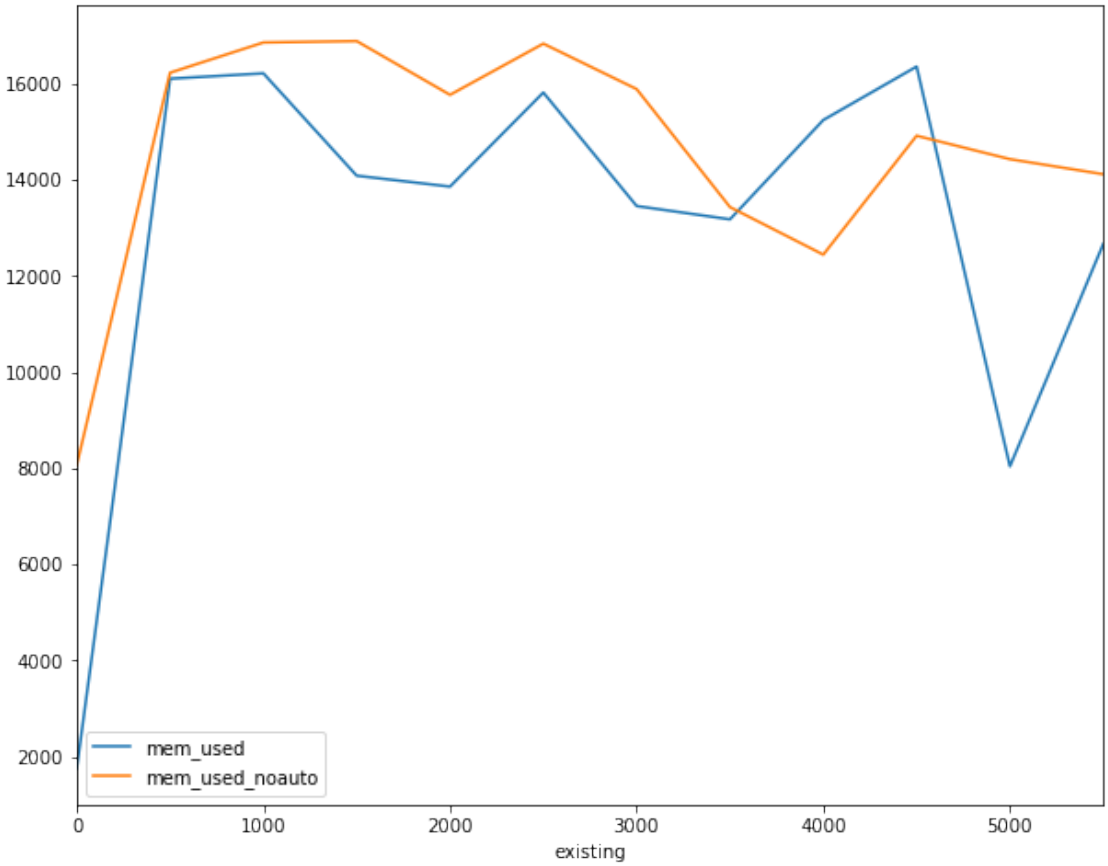
[66]:
```
meas = pd.read_csv('measurements_5500_bugfix_run1.txt', delim_whitespace=True)
meas_noauto = pd.read_csv('measurements_5500_noauto_bugfix_run1.txt',␣
 ↪delim_whitespace=True)

for col in ('real_time', 'user_time', 'sys_time'):
    meas.loc[:, col] = meas[col].map(convert_time)
    meas_noauto.loc[:, col] = meas_noauto[col].map(convert_time)

meas_noauto = meas_noauto.add_suffix('_noauto')
df = pd.concat([meas, meas_noauto.iloc[:, 2:]], axis=1)
display(df)

time_cols = ['real_time', 'real_time_noauto',
             'user_time', 'user_time_noauto',
             'sys_time', 'sys_time_noauto']
df.plot(x='existing', y=time_cols, figsize=(10, 8))

mem_used_cols = ['mem_used', 'mem_used_noauto']
mem_cum_cols = ['mem_cum', 'mem_cum_noauto']
df.plot(x='existing', y=mem_used_cols, figsize=(10, 8))
df.plot(x='existing', y=mem_cum_cols, figsize=(10, 8))
```

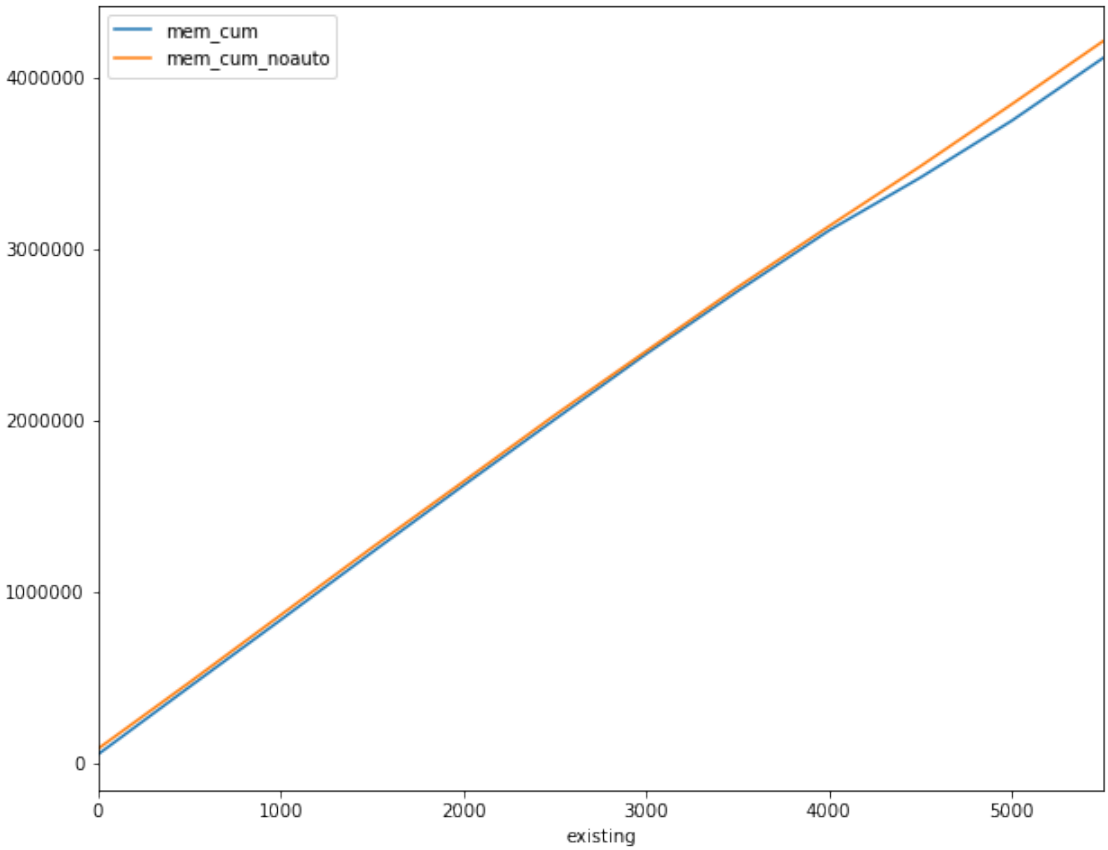
	existing	created	real_time	user_time	sys_time	mem_used	mem_cum	\
0	0	20	1.616	0.354	0.443	1756	52086	
1	500	20	1.930	0.358	0.481	16103	445500	
2	1000	20	2.043	0.344	0.505	16214	836757	
3	1500	20	2.109	0.340	0.496	14085	1231081	
4	2000	20	2.127	0.309	0.517	13858	1621297	
5	2500	20	2.043	0.337	0.475	15815	2006159	

```
6       3000       20      4.822      0.278     0.487     13454  2387880
7       3500       20      2.628      0.293     0.451     13177  2754198
8       4000       20      2.582      0.254     0.505     15243  3107829
9       4500       20      2.131      0.259     0.481     16355  3416301
10      5000       20      5.689      0.310     0.483      8039  3747911
11      5500       20      7.031      0.288     0.446     12663  4113730

    real_time_noauto  user_time_noauto  sys_time_noauto  mem_used_noauto  \
0              2.357             0.344            0.565             8069
1              2.969             0.406            0.585            16227
2              6.386             0.406            0.611            16856
3              3.191             0.469            0.566            16885
4              2.927             0.428            0.669            15767
5              4.728             0.447            0.683            16832
6              8.215             0.427            0.709            15886
7              6.700             0.506            0.692            13432
8              6.384             0.449            0.737            12443
9              7.088             0.504            0.764            14916
10             5.742             0.502            0.727            14429
11             6.541             0.546            0.739            14116

    mem_cum_noauto
0            84819
1           471536
2           864977
3          1258490
4          1643634
5          2031171
6          2404308
7          2776708
8          3132652
9          3482174
10         3844153
11         4212209
```

[66]: `<matplotlib.axes._subplots.AxesSubplot at 0x7f4aa1112cc0>`


real_time
real_time_noauto
user_time
user_time_noauto
sys_time
sys_time_noauto
0
1
2
3
4
5
6
7
8
0
1000
2000
3000
4000
5000
existing


16000
14000
12000
10000
8000
6000
4000
2000
0
1000
2000
3000
4000
5000
existing
mem_used
mem_used_noauto


mem_cum
mem_cum_noauto
4000000
3000000
2000000
1000000
0
0
1000
2000
3000
4000
5000
existing