

5.2 - casting

July 12, 2017

```
In [1]: import pandas as pd
```

```
In [2]: s = pd.DataFrame(-1, index=range(2), columns=range(1000))
```

```
In [3]: s
```

```
Out[3]:
```

	0	1	2	3	4	5	6	7	8	9	...	990	991	992	993
0	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	...	-1	-1	-1	-1
1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	...	-1	-1	-1	-1

	994	995	996	997	998	999
0	-1	-1	-1	-1	-1	-1
1	-1	-1	-1	-1	-1	-1

```
[2 rows x 1000 columns]
```

```
In [4]: s.dtypes.head()
```

```
Out[4]: 0    int64
         1    int64
         2    int64
         3    int64
         4    int64
dtype: object
```

```
In [5]: def is_even(i):
         return i % 2 == 0
```

```
In [6]: def fill_series1(s):
         mys = s.copy()
         for i in s.columns:
             mys.loc[0, i] = mys.loc[0, i] + is_even(i)
         return mys
```

```
In [7]: def fill_series2(s):
         mys = s.copy()
         for i in s.columns:
             mys.loc[0, i] = is_even(i)
         return mys
```

```
In [8]: %timeit fill_series1(s)
1 loop, best of 3: 211 ms per loop
```

```
In [9]: %timeit fill_series2(s)
1 loop, best of 3: 692 ms per loop
```

```
In [10]: fill_series1(s)
```

```
Out[10]:
```

	0	1	2	3	4	5	6	7	8	9	...	990	991	992	993
0	0	-1	0	-1	0	-1	0	-1	0	-1	...	0	-1	0	-1
1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	...	-1	-1	-1	-1
	994	995	996	997	998	999									
0	0	-1	0	-1	0	-1									
1	-1	-1	-1	-1	-1	-1									

[2 rows x 1000 columns]

```
In [11]: fill_series1(s).dtypes.head()
```

```
Out[11]: 0    int64
1    int64
2    int64
3    int64
4    int64
dtype: object
```

```
In [12]: fill_series2(s)
```

```
Out[12]:
```

	0	1	2	3	4	5	6	7	8	9	...
0	True	False	True	False	True	False	True	False	True	False	...
1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	...
	990	991	992	993	994	995	996	997	998	999	
0	True	False	True	False	True	False	True	False	True	False	
1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	

[2 rows x 1000 columns]

```
In [13]: fill_series2(s).dtypes.head()
```

```
Out[13]: 0    object
1    object
2    object
3    object
4    object
dtype: object
```