

## 5.2 - casting

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

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

```
In [3]: s.dtypes
```

```
0      int64
1      int64
2      int64
3      int64
4      int64
5      int64
6      int64
7      int64
8      int64
9      int64
10     int64
11     int64
12     int64
13     int64
14     int64
15     int64
16     int64
17     int64
18     int64
19     int64
20     int64
21     int64
22     int64
23     int64
24     int64
25     int64
26     int64
27     int64
28     int64
29     int64
...
```

```
970    int64
971    int64
972    int64
973    int64
974    int64
975    int64
976    int64
977    int64
978    int64
979    int64
980    int64
981    int64
982    int64
983    int64
984    int64
985    int64
986    int64
987    int64
988    int64
989    int64
990    int64
991    int64
992    int64
993    int64
994    int64
995    int64
996    int64
997    int64
998    int64
999    int64
dtype: object
```

```
In [4]: def is_even(i):
        return i % 2 == 0
```

```
In [5]: 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 [6]: def fill_series2(s):
        mys = s.copy()
        for i in s.columns:
            mys.loc[0, i] = is_even(i)
        return mys
```

```
In [7]: %timeit fill_series1(s)
```

1 loop, best of 3: 231 ms per loop

```
In [8]: %timeit fill_series2(s)
```

1 loop, best of 3: 750 ms per loop

```
In [9]: fill_series2(s)
```

```
   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 [10]: fill_series2(s).dtypes
```

```
0      object
1      object
2      object
3      object
4      object
5      object
6      object
7      object
8      object
9      object
10     object
11     object
12     object
13     object
14     object
15     object
16     object
17     object
18     object
19     object
20     object
21     object
22     object
23     object
```

```
24      object
25      object
26      object
27      object
28      object
29      object
      ...
970     object
971     object
972     object
973     object
974     object
975     object
976     object
977     object
978     object
979     object
980     object
981     object
982     object
983     object
984     object
985     object
986     object
987     object
988     object
989     object
990     object
991     object
992     object
993     object
994     object
995     object
996     object
997     object
998     object
999     object
dtype: object
```