

7_map_apply_lambda

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In [ ]: import pandas as pd
import numpy as np

In [ ]: from pandas import Series
```

0.0.1 lambda

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In [ ]: f = lambda x,y: x + y
f(1,4)
```

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In [ ]: def f(x , y):
return x + y
```

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In [ ]: f = lambda x: x ** 2
f(3)
```

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In [ ]: f = lambda x: x+5
f(3)
```

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In [ ]: (lambda x: x +1)(5)
```

0.0.2 map & replace

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In [ ]: ex = [1,2,3,4,5]
f = lambda x: x ** 2
list(map(f, ex))
```

```
In [ ]: f = lambda x, y: x + y
list(map(f, ex, ex))
```

```
In [ ]: list(map(lambda x: x+5, ex))
#python 3 list
```

```
In [ ]: s1 = Series(np.arange(10))
s1.head(5)
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In [ ]: s1.map(lambda x: x**2).head(5)
```

```
In [ ]: s1
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In [ ]: z = {1: 'A', 2: 'B', 3: 'C'}
        s1.map(z)

In [ ]: s2 = Series(np.arange(10,20))
        s2

In [ ]: s2 = Series(np.arange(10,20))
        s1.map(s2)

In [ ]: !wget https://raw.githubusercontent.com/rstudio/Intro/master/data/wages.csv

In [ ]: df = pd.read_csv("./data/wages.csv")
        df.head()

In [ ]: df.sex.unique()

In [ ]: df["sex_code"] = df.sex.map({"male":0, "female":1})
        df.head(5)

In [ ]: df.sex.replace(
        {"male":0, "female":1}
        ).head()

In [ ]: df.sex.head(5)

In [ ]: df.sex.replace(
        ["male", "female"],
        [0,1], inplace=True)

In [ ]: del df["sex_code"]

In [ ]: df.head()

```

0.0.3 apply & applymap

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In [ ]: df = pd.read_csv("wages.csv")
        df.head()

In [ ]: df_info = df[["earn", "height", "age"]]
        df_info.head()

In [ ]: f = lambda x : x.max() - x.min()
        df_info.apply(f)

In [ ]: df_info.apply(sum)

In [ ]: df_info.sum()

In [ ]: df_info.head()

```

```
In [ ]: def f(x):
        return Series([x.min(), x.max(), x.mean()],
                        index=["min", "max", "mean"])
        df_info.apply(f)

In [ ]: f = lambda x : -x
        df_info.applymap(f).head(5)

In [ ]: f = lambda x : -x
        df_info["earn"].apply(f).head(5)

In [ ]:
```