

Creating, Reading and Writing

1. Creating a DataFrame

```
import pandas as pd
pd.DataFrame({'col_A':[1,2],
              'col_B':[3,4]})
```

We can precise indexes this way:

```
import pandas as pd
pd.DataFrame({'col_A':[1,2],
              'col_B':[3,4]},
              index = ['idx_1','idx_2'])
```

2. Series

It's basically a single column DataFrame

```
pd.Series([30, 35, 40],
          index=['2015 Sales', '2016 Sales', '2017 Sales'],
          name='Product A')
```

3. Reading data files

```
data = pd.read_csv("data.csv", index_col=0)
```

We can easily get the size of a DataFrame in the format (row, columns) (it's an attribute)

```
data.shape
```

Indexing, Selecting & Assigning

1. Native accessors

We can access a column easily:

```
data.col_name  
data["col_name"]  
# we can also get a precise datum:  
data["col_name"][idx]
```

2. Indexing in pandas

We can access to the data with `iloc`:

```
data.iloc[[rows_idx], [columns_idx]]
```

We can also access to the data with `loc`:

```
data.iloc[[rows_idx], [columns_names]]
```

`iloc: 0:10` will select entries 0,...,9 `loc: 0:10` will select entries 0,...,10

2. Manipulating the index