

Read and Write

```
import pandas as pd

pd.read_csv('filepath_or_buffer', sep=',', names=None, index_col=None)

df.to_csv('path_or_buf', sep=',', columns=None, header=True, index=True, index_label=None, mode='w')
```

Numerical Features and Nans

```
df.sort_values(
    by=feat,
    ascending=False)

df[feat].dropna()

df[feat].isna()
```

sort table according to the values of a columns

remove lines with a NaN value

check if the value of *feat* is NaN in the table

Categorical Features

```
pd.get_dummies(df[feature])
```

Transform a categorical feature into dummy variables

Features Visualization

```
df[feats].plot(kind=['density' | 'bar'], subplots=True, figsize=)
```

General Infos and Basic Statistics

```
df.info()

df.describe()

df.describe(include=['object', 'bool'])
```

general infos

basic statistics on numerical features

include non-numerical features

Apply Functions

```
df.apply(my_function)

df.apply(lambda x: )

df['feat1'].map(d)

df['feat1'].replace(d)

df = df.replace({'feat': d})
```

apply a function

replace values in a column according to dict

d

Group by

```
df.groupby(['feat'])

[columns_to_keep].func()

df.groupby([feat])

[columns_to_keep].agg([list_of_functions])
```

group by a feature

group by a feature and apply several functions

Cross Tables

```
pd.crosstab(df['feat1'], df['feat2'], normalize=)
```

confusion matrix

```
df.pivot_table(
    ['features_to_analyze'],
    ['grouping_feat'],
    aggfunc='mean')
```

pivot table

```
pd.pivot_table(df, index='date', columns='category', values='value', aggfunc='mean')
```

distribution of numeric features

