Pandas Library: Complete Functions & Examples

This document contains a comprehensive list of functions from the Pandas library with syntax examples.

Function: DataFrame(data)

```
import pandas as pd

df = pd.DataFrame({'A': [1, 2], 'B': [3, 4]})

print(df)
```

Function: read_csv(file)

```
import pandas as pd

df = pd.read_csv('data.csv')

print(df.head())
```

Function: read_excel(file)

```
import pandas as pd

df = pd.read_excel('data.xlsx')

print(df.head())
```

Function: to_csv(file)

```
import pandas as pd

df = pd.DataFrame({'A': [1, 2], 'B': [3, 4]})

df.to_csv('output.csv', index=False)
```

Function: to_excel(file)

```
import pandas as pd

df = pd.DataFrame({'A': [1, 2], 'B': [3, 4]})

df.to_excel('output.xlsx', index=False)
```

Function: head(n)

```
import pandas as pd

df = pd.DataFrame({'A': [1, 2, 3, 4], 'B': [5, 6, 7, 8]})

print(df.head(2))
```

Function: tail(n)

```
import pandas as pd

df = pd.DataFrame({'A': [1, 2, 3, 4], 'B': [5, 6, 7, 8]})

print(df.tail(2))
```

Function: info()

```
import pandas as pd

df = pd.DataFrame({'A': [1, 2], 'B': [3, 4]})

print(df.info())
```

Function: describe()

```
import pandas as pd

df = pd.DataFrame({'A': [1, 2, 3, 4], 'B': [5, 6, 7, 8]})

print(df.describe())
```

Function: groupby(column)

```
import pandas as pd

df = pd.DataFrame({'A': ['x', 'y', 'x'], 'B': [1, 2, 3]})

print(df.groupby('A').sum())
```

Function: merge()

```
import pandas as pd

df1 = pd.DataFrame({'ID': [1, 2], 'Name': ['Alice', 'Bob']})

df2 = pd.DataFrame({'ID': [1, 2], 'Age': [25, 30]})
```

```
print(pd.merge(df1, df2, on='ID'))
```

Function: concat()

```
import pandas as pd

df1 = pd.DataFrame({'A': [1, 2]})

df2 = pd.DataFrame({'A': [3, 4]})

print(pd.concat([df1, df2]))
```

Function: fillna(value)

```
import pandas as pd

df = pd.DataFrame({'A': [1, None, 3]})

print(df.fillna(0))
```

Function: dropna()

```
import pandas as pd

df = pd.DataFrame({'A': [1, None, 3]})

print(df.dropna())
```

Function: replace()

```
import pandas as pd

df = pd.DataFrame({'A': ['foo', 'bar', 'foo']})

print(df.replace('foo', 'baz'))
```

Function: pivot_table()

```
import pandas as pd

df = pd.DataFrame({'A': ['foo', 'foo', 'bar'], 'B': [1, 2, 3], 'C': [4, 5, 6]})

print(pd.pivot_table(df, values='C', index='A', aggfunc='sum'))
```

Function: apply()

```
import pandas as pd
```

```
df = pd.DataFrame({'A': [1, 2, 3]})

print(df['A'].apply(lambda x: x * 2))
```

Function: sort_values()

```
import pandas as pd

df = pd.DataFrame({'A': [3, 1, 2]})

print(df.sort_values('A'))
```

Function: drop(columns)

```
import pandas as pd

df = pd.DataFrame({'A': [1, 2], 'B': [3, 4]})

print(df.drop(columns=['B']))
```

Function: set_index()

```
import pandas as pd

df = pd.DataFrame({'A': [1, 2], 'B': [3, 4]})

print(df.set_index('A'))
```