Common GroupBy Patterns

Basic Aggregation

```python
df.groupby('Sector')['Return'].mean()
```

Single column, single function

Multiple Functions

```python
df.groupby('Sector')['Return'].agg(['mean', 'std', 'count'])
```

Multiple statistics at once

Multiple Columns

```python
df.groupby('Sector')[['Return', 'Volume']].mean()
```

Aggregate multiple columns

Named Aggregation

```python
df.groupby('Sector').agg(

    avg_return=('Return', 'mean'),

    total_vol=('Volume', 'sum'))
```

Custom column names

Custom Function

```python
df.groupby('Sector')['Return'].apply(

    lambda x: x.quantile(0.95))
```

Use any function

Filter Groups

```python
df.groupby('Sector').filter(

    lambda x: x['Return'].mean() > 0.05)
```

Keep groups meeting condition

Pro Tips

as_index=False: Keep grouping column as regular column | sort=False: Maintain original order (faster) | observed=True: Only show categories present in data