

Key Matching Scenarios

Same Column Name

df1	
Ticker	Price
AAPL	\$150
MSFT	\$350

df2	
Ticker	Sector
AAPL	Tech
MSFT	Tech

df1	
Symbol	Price
AAPL	\$150
MSFT	\$350

df2	
Ticker	Sector
AAPL	Tech
MSFT	Tech

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

Use on= when column names match

```
pd.merge(df1, df2, left_on='Symbol', right_on='Ticker')
```

Use left_on/right_on for different names

Multiple Keys

df1		
Ticker	Date	Price
AAPL	Jan	\$150
AAPL	Feb	\$155

df2		
Ticker	Date	Volume
AAPL	Jan	10M
AAPL	Feb	12M

df1 (index=Ticker)	
Index	Price
AAPL	\$150
MSFT	\$350

df2 (index=Ticker)	
Index	Sector
AAPL	Tech
MSFT	Tech

```
pd.merge(df1, df2, on=['Ticker', 'Date'])
```

Pass list of columns for composite key

Index-Based Merge

```
df1.join(df2) # or merge with left_index=True, right_index=True
```

Use join() for index-based merging