In [1]:

```python
import pandas as pd
```

In [4]:

```python
products=pd.DataFrame([{'Product ID':4109,'Price':5.0,'Product':'Sushi Roll'},
                       {'Product ID':1412,'Price':0.5,'Product':'Egg'},
                       {'Product ID':8931,'Price':1.5,'Product':'Bagel'}])
products=products.set_index('Product ID')
invoices=pd.DataFrame([{'Customer':'Ali','Product ID':4109,'Quantity':1},
                       {'Customer':'Eric','Product ID':1412,'Quantity':12},
                       {'Customer':'Ande','Product ID':8931,'Quantity':6},
                       {'Customer':'Sam','Product ID':4109,'Quantity':2}])
```

In [5]:

```python
products
```

Out[5]:

	Price	Product
Product ID		
4109	5.0	Sushi Roll
1412	0.5	Egg
8931	1.5	Bagel

In [6]:

```python
invoices
```

Out[6]:

	Customer	Product ID	Quantity
0	Ali	4109	1
1	Eric	1412	12
2	Ande	8931	6
3	Sam	4109	2

In [10]:

```python
merged=pd.merge(products,invoices,how='outer',
        left_on='Product ID',
        right_on='Product ID')
```

In [11]:

```
merged
```

Out[11]:

	Product ID	Price	Product	Customer	Quantity
0	4109	5.0	Sushi Roll	Ali	1
1	4109	5.0	Sushi Roll	Sam	2
2	1412	0.5	Egg	Eric	12
3	8931	1.5	Bagel	Ande	6

In [ ]: