```
In [2]: import pandas as p
        import numpy as n
```

```
In [2]: w1=p.read_csv(r"C:\Users\Meghna\Documents\MEGHNA CHRIST\python 2\SBA-class-activity
```

```
In [6]: w1
```

Out[6]:

	Customer ID	Food ID
0	537	9
1	97	4
2	658	1
3	202	2
4	155	9
...	...	...
245	413	9
246	926	6
247	134	3
248	396	6
249	535	10

250 rows × 2 columns

```
In [3]: w2=p.read_csv(r"C:\Users\Meghna\Documents\MEGHNA CHRIST\python 2\SBA-class-activity
```

```
In [7]: w2
```

Out[7]:

	Customer ID	Food ID
0	688	10
1	813	7
2	495	10
3	189	5
4	267	3
...	...	...
245	783	10
246	556	10
247	547	9
248	252	9
249	249	6

250 rows × 2 columns

In [10]:
```python
food=p.read_csv(r"C:\Users\Meghna\Documents\MEGHNA CHRIST\python 2\SBA-class-activi
```

In [11]:
```python
food
```

Out[11]:

	Food ID	Food Item	Price
0	1	Sushi	3.99
1	2	Burrito	9.99
2	3	Taco	2.99
3	4	Quesadilla	4.25
4	5	Pizza	2.49
5	6	Pasta	13.99
6	7	Steak	24.99
7	8	Salad	11.25
8	9	Donut	0.99
9	10	Drink	1.75

In [12]:
```python
cust=p.read_csv(r"C:\Users\Meghna\Documents\MEGHNA CHRIST\python 2\SBA-class-activi
```

In [14]:
```python
cust
```

Out[14]:

	ID	First Name	Last Name	Gender	Company	Occupation
0	1	Joseph	Perkins	Male	Dynazzy	Community Outreach Specialist
1	2	Jennifer	Alvarez	Female	DabZ	Senior Quality Engineer
2	3	Roger	Black	Male	Tagfeed	Account Executive
3	4	Steven	Evans	Male	Fatz	Registered Nurse
4	5	Judy	Morrison	Female	Demivee	Legal Assistant
...	...	...	...	...	...	...
995	996	Debra	Garcia	Female	Dazzlesphere	Structural Engineer
996	997	Douglas	Bishop	Male	Livepath	Developer I
997	998	Frank	Franklin	Male	Brainverse	Nurse Practicioner
998	999	Jessica	Burns	Female	Babbleblab	Financial Advisor
999	1000	Brian	Daniels	Male	Tazzy	Physical Therapy Assistant

1000 rows × 6 columns

In [15]: `w1.head()`

Out[15]:

	Customer ID	Food ID
0	537	9
1	97	4
2	658	1
3	202	2
4	155	9

In [16]: `w2.head()`

Out[16]:

	Customer ID	Food ID
0	688	10
1	813	7
2	495	10
3	189	5
4	267	3

In [17]: `cust.head()`

Out[17]:

	ID	First Name	Last Name	Gender	Company	Occupation
0	1	Joseph	Perkins	Male	Dynazzy	Community Outreach Specialist
1	2	Jennifer	Alvarez	Female	DabZ	Senior Quality Engineer
2	3	Roger	Black	Male	Tagfeed	Account Executive
3	4	Steven	Evans	Male	Fatz	Registered Nurse
4	5	Judy	Morrison	Female	Demivee	Legal Assistant

In [18]:
```
p.concat([w1,w2])
```

Out[18]:

	Customer ID	Food ID
0	537	9
1	97	4
2	658	1
3	202	2
4	155	9
...	...	...
245	783	10
246	556	10
247	547	9
248	252	9
249	249	6

500 rows × 2 columns

In [20]:
```
p.concat([w1,w2],ignore_index=False)    #default for ignore index is false
```

Out[20]:

	Customer ID	Food ID
0	537	9
1	97	4
2	658	1
3	202	2
4	155	9
...	...	...
245	783	10
246	556	10
247	547	9
248	252	9
249	249	6

500 rows × 2 columns

In [21]:
```python
p.concat([w1,w2],ignore_index=True)
```

Out[21]:

	Customer ID	Food ID
0	537	9
1	97	4
2	658	1
3	202	2
4	155	9
...	...	...
495	783	10
496	556	10
497	547	9
498	252	9
499	249	6

500 rows × 2 columns

In [22]:
```python
p.concat([w1,w2], keys=["Week 1", "Week 2"]).sort_index()
```

Out[22]:

		Customer ID	Food ID
Week 1	0	537	9
	1	97	4
	2	658	1
	3	202	2
	4	155	9
...	...	...	...
Week 2	245	783	10
	246	556	10
	247	547	9
	248	252	9
	249	249	6

500 rows × 2 columns

```
In [23]: df1=p.DataFrame([1,2,3],columns=["A"])
         df1
```

Out[23]:

	A
0	1
1	2
2	3

```
In [24]: df2=p.DataFrame([4,5,6],columns=["B"])
         df2
```

Out[24]:

	B
0	4
1	5
2	6

```
In [26]: p.concat([df1,df2])  #NaN occurs bc concat adds to the bottom
```

Out[26]:

	A	B
0	1.0	NaN
1	2.0	NaN
2	3.0	NaN
0	NaN	4.0
1	NaN	5.0
2	NaN	6.0

In [27]:
```python
p.concat([df1,df2], axis="columns")
```

Out[27]:

	A	B
0	1	4
1	2	5
2	3	6

In [30]:
```python
w1.merge(food,how='left',on='Food ID')    #MERGE FUNCTION
```

Out[30]:

	Customer ID	Food ID	Food Item	Price
0	537	9	Donut	0.99
1	97	4	Quesadilla	4.25
2	658	1	Sushi	3.99
3	202	2	Burrito	9.99
4	155	9	Donut	0.99
...	...	...	...	...
245	413	9	Donut	0.99
246	926	6	Pasta	13.99
247	134	3	Taco	2.99
248	396	6	Pasta	13.99
249	535	10	Drink	1.75

250 rows × 4 columns

In [31]:
```python
w2.head()
```

Out[31]:

	Customer ID	Food ID
0	688	10
1	813	7
2	495	10
3	189	5
4	267	3

In [32]:
```python
cust.head()
```

Out[32]:

	ID	First Name	Last Name	Gender	Company	Occupation
0	1	Joseph	Perkins	Male	Dynazzy	Community Outreach Specialist
1	2	Jennifer	Alvarez	Female	DabZ	Senior Quality Engineer
2	3	Roger	Black	Male	Tagfeed	Account Executive
3	4	Steven	Evans	Male	Fatz	Registered Nurse
4	5	Judy	Morrison	Female	Demivee	Legal Assistant

In [33]:
```python
w2.merge(cust,how='left',left_on='Customer ID',right_on='ID')
```

Out[33]:

	Customer ID	Food ID	ID	First Name	Last Name	Gender	Company	Occupation
0	688	10	688	Carl	Williamson	Male	Thoughtmix	Graphic Designer
1	813	7	813	Johnny	Walker	Male	Kayveo	Developer II
2	495	10	495	Deborah	Little	Female	Babbleblab	VP Accounting
3	189	5	189	Roger	Gordon	Male	Skilith	Operator
4	267	3	267	Matthew	Wood	Male	Agimba	Product Engineer
...	...	...	...	...	...	...	...	...
245	783	10	783	Phyllis	Meyer	Female	Voolia	Information Systems Manager
246	556	10	556	Samuel	Bailey	Male	Oyoloo	Nurse
247	547	9	547	Tina	Watkins	Female	Thoughtstorm	Accountant II
248	252	9	252	Douglas	Powell	Male	Jetwire	Geologist IV
249	249	6	249	Anthony	Carpenter	Male	Shuffletag	Health Coach I

250 rows × 8 columns

In [6]:
```python
w2.merge(cust,how='left',left_on='Customer ID',right_on='ID').drop('ID',axis='colum
```

Out[6]:

	Customer ID	Food ID	First Name	Last Name	Gender	Company	Occupation
0	688	10	Carl	Williamson	Male	Thoughtmix	Graphic Designer
1	813	7	Johnny	Walker	Male	Kayveo	Developer II
2	495	10	Deborah	Little	Female	Babbleblab	VP Accounting
3	189	5	Roger	Gordon	Male	Skilith	Operator
4	267	3	Matthew	Wood	Male	Agimba	Product Engineer
...	...	...	...	...	...	...	...
245	783	10	Phyllis	Meyer	Female	Voolia	Information Systems Manager
246	556	10	Samuel	Bailey	Male	Oyoloo	Nurse
247	547	9	Tina	Watkins	Female	Thoughtstorm	Accountant II
248	252	9	Douglas	Powell	Male	Jetwire	Geologist IV
249	249	6	Anthony	Carpenter	Male	Shuffletag	Health Coach I

250 rows × 7 columns

13th JAN

In [3]:
```
w1=p.read_csv(r"C:\Users\Meghna\Documents\MEGHNA CHRIST\python 2\SBA-class-activity
w2=p.read_csv(r"C:\Users\Meghna\Documents\MEGHNA CHRIST\python 2\SBA-class-activity
food=p.read_csv(r"C:\Users\Meghna\Documents\MEGHNA CHRIST\python 2\SBA-class-activi
cust=p.read_csv(r"C:\Users\Meghna\Documents\MEGHNA CHRIST\python 2\SBA-class-activi
```

In [4]:
```
w2.head()
```

Out[4]:

	Customer ID	Food ID
0	688	10
1	813	7
2	495	10
3	189	5
4	267	3

In [5]:
```
cust.head()
```

Out[5]:

	ID	First Name	Last Name	Gender	Company	Occupation
0	1	Joseph	Perkins	Male	Dynazzy	Community Outreach Specialist
1	2	Jennifer	Alvarez	Female	DabZ	Senior Quality Engineer
2	3	Roger	Black	Male	Tagfeed	Account Executive
3	4	Steven	Evans	Male	Fatz	Registered Nurse
4	5	Judy	Morrison	Female	Demivee	Legal Assistant

In [7]:
```
w1[w1["Customer ID"]==155]
```

Out[7]:

	Customer ID	Food ID
4	155	9
17	155	1

In [8]:
```
w2[w2["Customer ID"]==155]
```

Out[8]:

	Customer ID	Food ID
208	155	3

In [9]:
```
w1.merge(w2,how='inner',on='Customer ID',suffixes=['-week 1','- week 2'])
```

Out[9]:

	Customer ID	Food ID-week 1	Food ID- week 2
0	537	9	5
1	155	9	3
2	503	5	8
3	503	5	9
4	155	1	3
...	...	...	...
57	945	5	4
58	343	3	5
59	343	3	2
60	343	3	7
61	621	9	6

62 rows × 3 columns

In [10]:
```
w1.merge(w2,how='inner',on=['Customer ID','Food ID'])
```

Out[10]:

	Customer ID	Food ID
0	304	3
1	540	3
2	937	10
3	233	3
4	21	4
5	922	1
6	21	4
7	578	5
8	578	5

In [11]:
```python
condition_1=w2['Customer ID']==578
condition_2=w2['Food ID']==5
w2[condition_1 & condition_2]
```

Out[11]:

	Customer ID	Food ID
29	578	5
189	578	5

In [ ]: