Group by and Aggregating

In [1]:
```
import pandas as pd
```

In [10]:
```
df = pd.read_csv(r"D:\COURSES\YOUTUBE\ALEX THE ANALYST\PYTHON\Flavors.csv")
```

In [11]:
```
df
```

Out[11]:

	Flavor	Base Flavor	Liked	Flavor Rating	Texture Rating	Total Rating
0	Mint Chocolate Chip	Vanilla	Yes	10.0	8.0	18.0
1	Chocolate	Chocolate	Yes	8.8	7.6	16.6
2	Vanilla	Vanilla	No	4.7	5.0	9.7
3	Cookie Dough	Vanilla	Yes	6.9	6.5	13.4
4	Rocky Road	Chocolate	Yes	8.2	7.0	15.2
5	Pistachio	Vanilla	No	2.3	3.4	5.7
6	Cake Batter	Vanilla	Yes	6.5	6.0	12.5
7	Neapolitan	Vanilla	No	3.8	5.0	8.8
8	Chocolte Fudge Brownie	Chocolate	Yes	8.2	7.1	15.3

In [12]:
```
group_by_frame = df.groupby('Base Flavor')
```

In [14]:
```
group_by_frame.mean('Flavor Rating','Texture Rating','Total Rating')
```

Out[14]:

Base Flavor	Flavor Rating	Texture Rating	Total Rating
Chocolate	8.4	7.233333	15.70
Vanilla	5.7	5.650000	11.35

In [16]:
```
df.groupby('Base Flavor').mean('Flavor Rating','Texture Rating','Total Rating')
```

Out[16]:

Base Flavor	Flavor Rating	Texture Rating	Total Rating
Chocolate	8.4	7.233333	15.70
Vanilla	5.7	5.650000	11.35

In [17]:
```
df.groupby('Base Flavor').count()
```

Out[17]:

Base Flavor	Flavor	Liked	Flavor Rating	Texture Rating	Total Rating
Chocolate	3	3	3	3	3
Vanilla	6	6	6	6	6

In [18]:
```
df.groupby('Base Flavor').min()
```

Out[18]:

Base Flavor	Flavor	Liked	Flavor Rating	Texture Rating	Total Rating
Chocolate	Chocolate	Yes	8.2	7.0	15.2
Vanilla	Cake Batter	No	2.3	3.4	5.7

In [19]:
```
df.groupby('Base Flavor').max()
```

Out[19]:

Base Flavor	Flavor	Liked	Flavor Rating	Texture Rating	Total Rating
Chocolate	Rocky Road	Yes	8.8	7.6	16.6
Vanilla	Vanilla	Yes	10.0	8.0	18.0

In [20]:
```
df.groupby('Base Flavor').sum()
```

Out[20]:

Base Flavor	Flavor	Liked	Flavor Rating	Texture Rating	Total Rating
Chocolate	ChocolateRocky RoadChocolte Fudge Brownie	YesYesYes	25.2	21.7	47.1
Vanilla	Mint Chocolate ChipVanillaCookie DoughPistachi...	YesNoYesNoYesNo	34.2	33.9	68.1

In [22]:
```
Rating':['mean','max','count','sum'],'Texture Rating':['mean','max','count','sum']})
```

Out[22]:

	Flavor Rating				Texture Rating			
	mean	max	count	sum	mean	max	count	sum
Base Flavor								
Chocolate	8.4	8.8	3	25.2	7.233333	7.6	3	21.7
Vanilla	5.7	10.0	6	34.2	5.650000	8.0	6	33.9

In [24]:
```
df.groupby(['Base Flavor','Liked']).mean('Flavor Rating','Texture Rating','Total Rat
```

Out[24]:

		Flavor Rating	Texture Rating	Total Rating
Base Flavor	**Liked**			
Chocolate	**Yes**	8.4	7.233333	15.700000
Vanilla	**No**	3.6	4.466667	8.066667
	Yes	7.8	6.833333	14.633333

In [25]:
```
groupby(['Base Flavor','Liked']).agg({'Flavor Rating':['mean','max','count','sum']})
```

Out[25]:

		Flavor Rating			
		mean	max	count	sum
Base Flavor	**Liked**				
Chocolate	**Yes**	8.4	8.8	3	25.2
Vanilla	**No**	3.6	4.7	3	10.8
	Yes	7.8	10.0	3	23.4

In [26]:
```
df.groupby('Base Flavor').describe()
```

Out[26]:

	Flavor Rating								Texture Rating					Total
	count	mean	std	min	25%	50%	75%	max	count	mean	...	75%	max	count
Base Flavor														
Chocolate	3.0	8.4	0.346410	8.2	8.200	8.2	8.5	8.8	3.0	7.233333	...	7.350	7.6	3.0
Vanilla	6.0	5.7	2.710719	2.3	4.025	5.6	6.8	10.0	6.0	5.650000	...	6.375	8.0	6.0

2 rows × 24 columns

In [ ]:
```

```