Q8. Consider the following data frame containing a family name, gender of the family member and her/his monthly income in each record

In [10]:
```
import numpy as np
import pandas as pd

df = pd.read_csv('F:\CS\sem 5\Data Analysis and Visualisation\Practicals/family_
df
```

Out[10]:

	Name	Gender	Monthly Income (Rs.)
0	Shah	Male	114000
1	Vats	Male	65000
2	Vats	Female	43150
3	Kumar	Female	69500
4	Vats	Female	155000
5	Kumar	Male	103000
6	Shah	Male	55000
7	Shah	Female	112400
8	Kumar	Female	81030
9	Vats	Male	71900

a. Calculate and display familywise gross monthly income.

In [13]:
```
df.groupby('Name')['Monthly Income (Rs.)'].sum()
```

Out[13]:
```
Name
Kumar    253530
Shah     281400
Vats     335050
Name: Monthly Income (Rs.), dtype: int64
```

b. Calculate and display the member with the highest monthly income in a family.

In [12]:
```
df1 = pd.DataFrame(df.groupby('Name')['Monthly Income (Rs.)'].max())
df1
```

Out[12]:

Name	Monthly Income (Rs.)
Kumar	103000
Shah	114000
Vats	155000

c. Calculate and display monthly income of all members with income greater than Rs. 60000.00.

In [14]:
```
df[df['Monthly Income (Rs.)'] > 60000]
```

Out[14]:

	Name	Gender	Monthly Income (Rs.)
0	Shah	Male	114000
1	Vats	Male	65000
3	Kumar	Female	69500
4	Vats	Female	155000
5	Kumar	Male	103000
7	Shah	Female	112400
8	Kumar	Female	81030
9	Vats	Male	71900

d. Calculate and display the average monthly income of the female members in the Shah family.

In [15]:
```
df[(df['Name'] == 'Shah') & (df['Gender'] == 'Female')]['Monthly Income (Rs.)'].
```

Out[15]:
```
112400.0
```