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

In [2]:
```
df=pd.read_csv('loan_data_set.csv')
```

In [3]:
```
df
```

Out[3]:

	Loan_ID	Gender	Married	Dependents	Education	Self_Employed	ApplicantIncome	Coapl
0	LP001002	Male	No	0	Graduate	No	5849	
1	LP001003	Male	Yes	1	Graduate	No	4583	
2	LP001005	Male	Yes	0	Graduate	Yes	3000	
3	LP001006	Male	Yes	0	Not Graduate	No	2583	
4	LP001008	Male	No	0	Graduate	No	6000	
...	...	...	...	...	...	...	...	...
609	LP002978	Female	No	0	Graduate	No	2900	
610	LP002979	Male	Yes	3+	Graduate	No	4106	
611	LP002983	Male	Yes	1	Graduate	No	8072	
612	LP002984	Male	Yes	2	Graduate	No	7583	
613	LP002990	Female	No	0	Graduate	Yes	4583	

614 rows × 13 columns

In [4]:
```
print(df['ApplicantIncome'].mean())            #v
print(df['CoapplicantIncome'].mean())
```

```
5403.459283387622
1621.2457980271008
```

In [5]:
```
print(df['ApplicantIncome'].median())
print(df['CoapplicantIncome'].median())
```

```
3812.5
1188.5
```

In [6]:
```
print(df['ApplicantIncome'].mode())
print(df['CoapplicantIncome'].mode())
```

```
0    2500
Name: ApplicantIncome, dtype: int64
0    0.0
Name: CoapplicantIncome, dtype: float64
```

In [7]:
```
print(df['ApplicantIncome'].min())
print(df['CoapplicantIncome'].min())
```

```
150
0.0
```

In [8]:
```
print(df['ApplicantIncome'].max())
print(df['CoapplicantIncome'].max())
```

```
81000
41667.0
```

In [9]:
```
print(df['ApplicantIncome'].std())      #1
print(df['CoapplicantIncome'].std())
```

```
6109.041673387178
2926.2483692241885
```

In [10]:
```
df.describe()
```

Out[10]:

	ApplicantIncome	CoapplicantIncome	LoanAmount	Loan_Amount_Term	Credit_History
count	614.000000	614.000000	592.000000	600.00000	564.000000
mean	5403.459283	1621.245798	146.412162	342.00000	0.842199
std	6109.041673	2926.248369	85.587325	65.12041	0.364878
min	150.000000	0.000000	9.000000	12.00000	0.000000
25%	2877.500000	0.000000	100.000000	360.00000	1.000000
50%	3812.500000	1188.500000	128.000000	360.00000	1.000000
75%	5795.000000	2297.250000	168.000000	360.00000	1.000000
max	81000.000000	41667.000000	700.000000	480.00000	1.000000

In [11]:
```
gk=df.groupby('Gender')
```

In [12]:
```
gk.get_group('Male')                    #a
```

Out[12]:

	Loan_ID	Gender	Married	Dependents	Education	Self_Employed	ApplicantIncome	Coapl
0	LP001002	Male	No	0	Graduate	No	5849	
1	LP001003	Male	Yes	1	Graduate	No	4583	
2	LP001005	Male	Yes	0	Graduate	Yes	3000	
3	LP001006	Male	Yes	0	Not Graduate	No	2583	
4	LP001008	Male	No	0	Graduate	No	6000	
...	...	...	...	...	...	...	...	
607	LP002964	Male	Yes	2	Not Graduate	No	3987	
608	LP002974	Male	Yes	0	Graduate	No	3232	
610	LP002979	Male	Yes	3+	Graduate	No	4106	
611	LP002983	Male	Yes	1	Graduate	No	8072	
612	LP002984	Male	Yes	2	Graduate	No	7583	

489 rows × 13 columns

In [13]:
```
gk.get_group('Female')                #c
```

Out[13]:

	Loan_ID	Gender	Married	Dependents	Education	Self_Employed	ApplicantIncome	Coapl
17	LP001036	Female	No	0	Graduate	No	3510	
29	LP001087	Female	No	2	Graduate	NaN	3750	
37	LP001112	Female	Yes	0	Graduate	No	3667	
45	LP001137	Female	No	0	Graduate	No	3410	
48	LP001146	Female	Yes	0	Graduate	No	2645	
...	...	...	...	...	...	...	...	
587	LP002917	Female	No	0	Not Graduate	No	2165	
600	LP002949	Female	No	3+	Graduate	NaN	416	
604	LP002959	Female	Yes	1	Graduate	No	12000	
609	LP002978	Female	No	0	Graduate	No	2900	
613	LP002990	Female	No	0	Graduate	Yes	4583	

112 rows × 13 columns

In [14]:
```
df.groupby(df['Gender']).ApplicantIncome.agg(['min','max','mean','median','std
```

Out[14]:

Gender	min	max	mean	median	std
Female	210	19484	4643.473214	3583.0	3585.381488
Male	150	81000	5446.460123	3865.0	6185.789262