Basics Of Data Frame

In [ ]:
```
#Exp no.:3
```

In [2]:
```
#Name:Vedant M. Padole
#Roll no:42
#Sec:C
#Subject:ET1
#Date:
```

Creating Series

In [2]:
```
import pandas as pd
```

In [4]:
```
Name=["Sahil","Vedant","Atharva","Yash","Kartik","Anand"]
```

In [5]:
```
Name
```

Out[5]:
```
['Sahil', 'Vedant', 'Atharva', 'Yash', 'Kartik', 'Anand']
```

In [6]:
```
Roll_list=pd.Series(Name,index=[1,2,3,4,5,6])
```

In [7]:
```
print(Roll_list)
```

```
1      Sahil
2     Vedant
3    Atharva
4       Yash
5     Kartik
6      Anand
dtype: object
```

Creating Data Frame

In [8]:
```
import pandas as pd
```

In [15]:
```
df = pd.DataFrame([[10,12,45,60],[54,70,26,90],[78,89,45,24]], columns=["CD","DBMS",
```

In [17]:
```
df
```

Out[17]:

	CD DBMS DSS	CAO
0	10 12 45	60
1	54 70 26	90
2	78 89 45	24

In [18]:
```
df.shape
```

Out[18]:
```
(3, 4)
```

In [20]:
```
df.size
```

Out[20]: 12

In [21]:
```
df.ndim
```

Out[21]: 2

Adding Record(Row) to the data Frame

In [22]:
```
import pandas as pd
```

In [24]:
```
df2=pd.DataFrame([[10,12,45,60]],columns=["CD","DBMS","DSS","CAO"])
```

In [25]:
```
df3 = pd.concat([df, df2], ignore_index=True)
```

In [26]:
```
df3
```

Out[26]:

	CD	DBMS	DSS	CAO
0	10	12	45	60
1	54	70	26	90
2	78	89	45	24
3	10	12	45	60

In [27]:
```
df3.shape
```

Out[27]: (4, 4)

In [28]:
```
df3.size
```

Out[28]: 16

In [29]:
```
df3.ndim
```

Out[29]: 2

In [30]:
```
df3["DM"]=[12,15,90,85]
```

In [31]:
```
df3
```

Out[31]:

	CD	DBMS	DSS	CAO	DM
0	10	12	45	60	12
1	54	70	26	90	15
2	78	89	45	24	90
3	10	12	45	60	85

Deleting Record from df3 dataframe

In [32]:
```
df4=df3.drop(index=[1])
```

In [33]:
```
df4
```

Out[33]:

	CD DBMS DSS	CAO	DM
0	10 12 45	60	12
2	78 89 45	24	90
3	10 12 45	60	85

Deleting Attribute(Columns) from df3 dataframe

In [34]:
```
df5=df3.drop(columns=["DM"])
```

In [35]:
```
df5
```

Out[35]:

	CD DBMS DSS	CAO
0	10 12 45	60
1	54 70 26	90
2	78 89 45	24
3	10 12 45	60

In [36]:
```
print("Mean of DSS:",df5["DSS"].mean())
```

```
Mean of DSS: 40.25
```

In [37]:
```
print("Median of DSS:",df5["DSS"].median())
```

```
Median of DSS: 45.0
```

In [38]:
```
print("Mode of DSS:",df5["DSS"].mode())
```

```
Mode of DSS: 0    45
dtype: int64
```

Conclusion :

Inthis experiment, I haveexplored the basics of DataFrames by creating Series and DataFrames, adding records and attributes, and performing deletion operations. This helped in understanding the structure and dynamic manipulation capabilities of pandas DataFrames.

In [ ]:
```

```