

Basics Of Data Frame

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

```
In [2]: #Name:Sahil A. Bankar  
#Roll no:04  
#Sec:B  
#Subject:ET1  
#Date:07/08/2025
```

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
```

	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 :

In this experiment, I have explored 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 [ ]:
```