In [1]: `#Experiment no.3`

In [1]: `#Aim :Creation of data frame`

In [2]:
```
#Name:Janvi R.Kale
#Roll no.:29
#sec:A
#sub:ET 1
#date:25-08-2025
```

In [3]:
```
#import pandas library
import pandas as pd
```

In [4]:
```
#creating Data frame
df=pd.DataFrame([[10,14,15,11],[12,15,17,16],[9,7,12,14]],
columns=["CD","DBMS","DSS","CAO"])
```

In [6]: `df`

Out[6]:

	CD	DBMS	DSS	CAO
0	10	14	15	11
1	12	15	17	16
2	9	7	12	14

In [7]: `df.shape`

Out[7]: `(3, 4)`

In [8]: `df.size`

Out[8]: `12`

In [11]: `df.ndim`

Out[11]: `2`

Adding attribute row

In [ ]:
```
# df2=pd.DataFrame([[11,14,10,11]],
columns=["CD","DBMS","DSS","CAO"])
```

In [21]: `df2`

Out[21]:

	CD	DBMS	DSS	CAO
0	11	14	10	11

```
In [30]: df3=df.append(df2,ignore_index=True)
```

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

Out[31]:

	CD	DBMS	DSS	CAO
0	10	14	15	11
1	12	15	17	16
2	9	7	12	14
3	11	14	10	11

```
In [25]: df3.size
```

Out[25]: 16

```
In [26]: df3.shape
```

Out[26]: (4, 4)

Adding attribue column

```
In [33]: df3["DM"]=[12,14,20,12]
```

```
In [34]: df3
```

Out[34]:

	CD	DBMS	DSS	CAO	DM
0	10	14	15	11	12
1	12	15	17	16	14
2	9	7	12	14	20
3	11	14	10	11	12

Deleting record from dataframe

```
In [35]: df4=df3.drop(index=[1])
```

```
In [36]: df4
```

Out[36]:

	CD	DBMS	DSS	CAO	DM
0	10	14	15	11	12
2	9	7	12	14	20
3	11	14	10	11	12

Deleting column from dataframe

In [38]: `df5=df3.drop(columns=["DM"])`

In [39]: `df5`

Out[39]:

	CD	DBMS	DSS	CAO
0	10	14	15	11
1	12	15	17	16
2	9	7	12	14
3	11	14	10	11

In [40]:
```
#Finding mean of DSS
print("Mean of DSS:",df5["DSS"].mean())
```
Mean of DSS: 13.5

In [41]:
```
#Finding median of DSS
print("Mean of DSS:",df5["DSS"].median())
```
Mean of DSS: 13.5

In [42]:
```
#Finding mode of DSS
print("Mean of DSS:",df5["DSS"].mode())
```
```
Mean of DSS: 0    10
1    12
2    15
3    17
dtype: int64
```

In [43]:
```
#Finding min of DSS
print("Min of DSS:",df5["DSS"].min())
```
Min of DSS: 10

In [44]:
```
#Finding max of DSS
print("Max of DSS:",df5["DSS"].max())
```
Max of DSS: 17

Creating a series

In [45]:
```
#creating student name list
Name=["Janvi","Madhura","Tanvi","kartiki","Jiya","Leena"]
Name
```

Out[45]: `['Janvi', 'Madhura', 'Tanvi', 'kartiki', 'Jiya', 'Leena']`

In [46]:
```python
#Creating a series
Roll_list=pd.Series(Name,index=[1,2,3,4,5,6])
print(Roll_list)
```

```
1        Janvi
2      Madhura
3        Tanvi
4      kartiki
5         Jiya
6        Leena
dtype: object
```

◆ Conclusion: In this practical, we learned the basics of DataFrame, including creation, indexing, and data manipulation. Understanding how to create and handle rows, columns, and data types provided a strong foundation for efficient data analysis and preparation for more advanced operations.

In [ ]: