

Experiment - 17

Aim: Create Pandas DataFrame from various inputs.

Program:

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#Different Methods of Creation of DataFrame

Method 1: using a single tuple

```
a = pd.DataFrame(('AI', 'ML', 'DL'))
print(a)
```

Method 2: using a single list

```
b = pd.DataFrame(['AI', 'Data', 'Science'], columns = ['Subject'])
print(b)
```

Method 3: using a list of list

```
c = pd.DataFrame([[ 'Alex',10],[ 'Bob',12],[ 'Clarke',13]], columns = ['Name','Age'])
print(c)
```

Method 4: using dictionary of lists

```
d = pd.DataFrame({ 'Name': ['John', 'Mark', 'Joseph'],
                   'Age': [29, 24, 28, ],
                   'City': ['Sydney', 'Paris', 'New York']})
print(d)
```

Method 5: using Numpy arrays

```
e = pd.DataFrame({
    'name':['Jane','John','Ashley','Mike'],
    'category':['A','D','C','D'],
    'val1':np.random.random(4).round(2),
    'val2':np.random.randint(1,10, size=4),
    'val3':np.array(['Aditya','Emily',40,50])})
print(e)
```

#Method 6: using Series

```
g = pd.DataFrame(pd.Series(['Jit', 'Purn', 'Arp', 'Jot']))
print(g)
```

#Method 7: using .csv file

```
g = pd.DataFrame('/content/drive/MyDrive/nba.csv')
print(g)
```

Output:

```
0
0 AI
1 ML
2 DL

      Subject
0         AI
1      Data
2  Science
```

	Name	Age
0	Alex	10
1	Bob	12
2	Clarke	13

	Name	Age	City
0	John	29	Sydney
1	Mark	24	Paris
2	Joseph	28	New York

	name	category	val1	val2	val3
0	Jane	A	0.47	1	Aditya
1	John	D	0.37	2	Emily
2	Ashley	C	0.83	6	40
3	Mike	D	0.30	7	50

0	Jit
1	Purn
2	Arp
3	Jot

	Name	Team	Number	Position	Age	Height	Weight	College	Salary
0	Avery Bradley	Boston Celtics	0.0	PG	25.0	6-2	180.0	Texas	7730337
..
457	Jae Crowder	Boston Celtics	99.0	NaN	25.0	6-6	235.0	Marquette	6796117