In [ ]:

```
# Pandas

# Pandas is a dataframe ,
# pandas dataframe is two-D,Size-mutable, Hetro,Homo, data in structured format with label
```

In [1]:

```
import pandas as pd
```

In [2]:

```
data1 = pd.DataFrame()
data1
```

Out[2]:

—

In [4]:

```
# convert list into dataframe
list1 = ['a','b','c']
list1
```

Out[4]:

```
['a', 'b', 'c']
```

In [5]:

```
d1 = pd.DataFrame(list1)
d1
```

Out[5]:

	0
0	a
1	b
2	c

In [6]:

```
import numpy as np
```

In [7]:

```
data2 = np.array([[1,2,3,4],[5,6,7,8]])
```

In [8]:

```
d2 = pd.DataFrame(data2)
d2
```

Out[8]:

	0	1	2	3
0	1	2	3	4
1	5	6	7	8

In [9]:

```
d2[3]
```

Out[9]:

```
0    4
1    8
Name: 3, dtype: int32
```

In [11]:

```
d2.columns
```

Out[11]:

```
RangeIndex(start=0, stop=4, step=1)
```

In [ ]:

```

```

In [12]:

```
data3 = np.array([[1,2,3,4,5],[6,7,8,9,10]])
d3 = pd.DataFrame(data3)
d3
```

Out[12]:

	0	1	2	3	4
0	1	2	3	4	5
1	6	7	8	9	10

In [13]:

```
d3.columns
```

Out[13]:

```
RangeIndex(start=0, stop=5, step=1)
```

In [ ]:

```
```

In [14]:

```
# replace of default Index value
d4 = pd.DataFrame(data2,columns=["one","two","three","four"])
d4
```

Out[14]:

	one	two	three	four
0	1	2	3	4
1	5	6	7	8

In [15]:

```
# getting particular column name based on index i'll get error
d4[3]
```

...

In [16]:

```
d4['three']
```

Out[16]:

```
0    3
1    7
Name: three, dtype: int32
```

In [ ]:

```
```

In [17]:

```
# Converting List into DataFrame
list2 = [[1,2,3],[2,3,4],[4,5,6]]
d5 = pd.DataFrame(list2)
d5
```

Out[17]:

	0	1	2
0	1	2	3
1	2	3	4
2	4	5	6

In [18]:

```
# Convert Dict into DataFrame
dict1 = {'ID':[10,20,30,40]}
dict1
```

Out[18]:

```
{'ID': [10, 20, 30, 40]}
```

In [19]:

```
d6 = pd.DataFrame(dict1)
d6
```

Out[19]:

	ID
0	10
1	20
2	30
3	40

In [ ]:

```

```

In [21]:

```
dict2 = {'ID':[10,20,30,40],'Name':['Jobin','Suresh','Venkat','Harish']}
dict2
```

Out[21]:

```
{'ID': [10, 20, 30, 40], 'Name': ['Jobin', 'Suresh', 'Venkat', 'Harish']}
```

In [22]:

```
d7 = pd.DataFrame(dict2)
d7
```

Out[22]:

	ID	Name
0	10	Jobin
1	20	Suresh
2	30	Venkat
3	40	Harish

In [ ]:

```

```

In [23]:

```
# multiple dict inside list

list4 = [{'ID':101,'Name':'Micky'},{'ID':102,'Name':'Akira'}]
list4
```

Out[23]:

```
[{'ID': 101, 'Name': 'Micky'}, {'ID': 102, 'Name': 'Akira'}]
```

In [24]:

```
d8 = pd.DataFrame(list4)
d8
```

Out[24]:

	ID	Name
0	101	Micky
1	102	Akira

In [ ]:

```

```

In [25]:

```
list5 = [{'ID':101,'Name':'Micky'},{'ID':102,'Name':'Akira','City':'Hyd'}]
list5
```

Out[25]:

```
[{'ID': 101, 'Name': 'Micky'}, {'ID': 102, 'Name': 'Akira', 'City': 'Hyd'}]
```

In [26]:

```
d9 = pd.DataFrame(list5)
d9
```

Out[26]:

	City	ID	Name
0	NaN	101	Micky
1	Hyd	102	Akira

In [ ]:

```

```