

```
In [2]: ## Pandas
```

```
In [3]: import numpy as np
import pandas as pd
```

```
In [4]: list = [[1, 'Smith', 50000], [2, 'Jones', 60000]]
```

```
In [5]: ### How to create dataframe from list ?
```

```
df = pd.DataFrame(list)
```

```
In [6]: df
```

```
Out[6]:
```

	0	1	2
0	1	Smith	50000
1	2	Jones	60000

```
In [7]: ### How to assign names to dataframe
```

```
df.columns = ['Empid', 'Name', 'Salary']
```

```
In [8]: df
```

```
Out[8]:
```

	Empid	Name	Salary
0	1	Smith	50000
1	2	Jones	60000

```
In [9]: df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 2 entries, 0 to 1
Data columns (total 3 columns):
 #   Column  Non-Null Count  Dtype
---  -
 0   Empid   2 non-null       int64
 1   Name    2 non-null       object
 2   Salary  2 non-null       int64
dtypes: int64(2), object(1)
memory usage: 176.0+ bytes
```

```
In [13]: ## Reading data from csv file and loading the data into the dataframe
df = pd.read_csv("C:/Users/SW20407278/Desktop/Final AI/Dataset/50_Startups.csv")
```

```
In [14]: df.info()
```

```

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 50 entries, 0 to 49
Data columns (total 5 columns):
#   Column                Non-Null Count  Dtype
---  -
0   R&D Spend              50 non-null     float64
1   Administration         50 non-null     float64
2   Marketing Spend        50 non-null     float64
3   State                  50 non-null     object
4   Profit                 50 non-null     float64
dtypes: float64(4), object(1)
memory usage: 2.1+ KB

```

```

In [15]: ## Shows first 5 rows in the dataframe
df.head(5)

```

```

Out[15]:

```

	R&D Spend	Administration	Marketing Spend	State	Profit
<b>0</b>	165349.20	136897.80	471784.10	New York	192261.83
<b>1</b>	162597.70	151377.59	443898.53	California	191792.06
<b>2</b>	153441.51	101145.55	407934.54	Florida	191050.39
<b>3</b>	144372.41	118671.85	383199.62	New York	182901.99
<b>4</b>	142107.34	91391.77	366168.42	Florida	166187.94

```

In [ ]: ## Shows last five rows in the dataframe
df.tail(5)

```

```

Out[ ]:

```

	R&D Spend	Administration	Marketing Spend	State	Profit
<b>45</b>	1000.23	124153.04	1903.93	New York	64926.08
<b>46</b>	1315.46	115816.21	297114.46	Florida	49490.75
<b>47</b>	0.00	135426.92	0.00	California	42559.73
<b>48</b>	542.05	51743.15	0.00	New York	35673.41
<b>49</b>	0.00	116983.80	45173.06	California	14681.40

```

In [ ]:

```