

```
In [11]: import pandas as pd
import numpy as np
```

```
In [20]: rast1=np.random.randint(1,20,(4,3))
rast2=np.random.randint(20,40,(4,3))
```

```
In [22]: rast1
```

```
Out[22]: array([[ 5, 11, 17],
               [ 3,  9, 16],
               [ 9, 19,  4],
               [ 3, 15, 12]])
```

```
In [24]: rast2
```

```
Out[24]: array([[31, 32, 31],
               [30, 39, 28],
               [31, 39, 20],
               [31, 20, 32]])
```

```
In [30]: #iki diziyi de dataframe'e çevirelim
df1=pd.DataFrame(rast1,columns=["sütun1","sütun2","sütun3"])
df2=pd.DataFrame(rast2,columns=["sütun1","sütun2","sütun3"])
```

```
In [32]: df1
```

```
Out[32]:
```

	sütun1	sütun2	sütun3
0	5	11	17
1	3	9	16
2	9	19	4
3	3	15	12

```
In [34]: df2
```

```
Out[34]:
```

	sütun1	sütun2	sütun3
0	31	32	31
1	30	39	28
2	31	39	20
3	31	20	32

```
In [170... # Çalışanlar veri seti
emp = pd.DataFrame({
    'Employee ID': [1, 2, 3, 4, 5],
    'Name': ['Alice', 'Bob', 'Charlie', 'David', 'Eve'],
    'Department ID': [101, 102, 101, 103, 102],
    'Salary (USD)': [60000, 50000, 70000, 48000, 52000]
})
```

```
In [172... # Departmanlar veri seti
dep = pd.DataFrame({
    'Department ID': [101, 102, 103],
    'Department Name': ['Marketing', 'Sales', 'HR'],
    'Location': ['New York', 'Los Angeles', 'Chicago']
})
```

```
In [174... emp.columns=["Çalışan ID", "İsim", "Departman ID", "Maaş"]
emp
```

```
Out[174... 
```

	Çalışan ID	İsim	Departman ID	Maaş
0	1	Alice	101	60000
1	2	Bob	102	50000
2	3	Charlie	101	70000
3	4	David	103	48000
4	5	Eve	102	52000

```
In [176... dep.columns=["Departman ID", "Departman", "Konum"]
dep
```

```
Out[176... 
```

	Departman ID	Departman	Konum
0	101	Marketing	New York
1	102	Sales	Los Angeles
2	103	HR	Chicago

```
In [178... #concat ile birleştirme
df=pd.concat([emp,dep], ignore_index=True)
df
```

```
Out[178... 
```

	Çalışan ID	İsim	Departman ID	Maaş	Departman	Konum
0	1.0	Alice	101	60000.0	NaN	NaN
1	2.0	Bob	102	50000.0	NaN	NaN
2	3.0	Charlie	101	70000.0	NaN	NaN
3	4.0	David	103	48000.0	NaN	NaN
4	5.0	Eve	102	52000.0	NaN	NaN
5	NaN	NaN	101	NaN	Marketing	New York
6	NaN	NaN	102	NaN	Sales	Los Angeles
7	NaN	NaN	103	NaN	HR	Chicago

```
In [180... #merge ile birleştirme
df=pd.merge(emp,dep, on="Departman ID")
df
```

Out[180...

	Çalışan ID	İsim	Departman ID	Maaş	Departman	Konum
0	1	Alice	101	60000	Marketing	New York
1	2	Bob	102	50000	Sales	Los Angeles
2	3	Charlie	101	70000	Marketing	New York
3	4	David	103	48000	HR	Chicago
4	5	Eve	102	52000	Sales	Los Angeles

In [182...

```
#join ile birleştirme
#ortak bir index belirtmemiz gerekiyor.
dep.set_index("Departman ID", inplace=True)
emp.set_index("Departman ID", inplace=True)
df=emp.join(dep)
df
```

Out[182...

	Çalışan ID	İsim	Maaş	Departman	Konum
Departman ID					
101	1	Alice	60000	Marketing	New York
102	2	Bob	50000	Sales	Los Angeles
101	3	Charlie	70000	Marketing	New York
103	4	David	48000	HR	Chicago
102	5	Eve	52000	Sales	Los Angeles

Satır, Sütun Kaldırma İşlemleri (DROP)

In [186...

```
yeni_df=df.drop(101)
yeni_df
```

Out[186...

	Çalışan ID	İsim	Maaş	Departman	Konum
Departman ID					
102	2	Bob	50000	Sales	Los Angeles
103	4	David	48000	HR	Chicago
102	5	Eve	52000	Sales	Los Angeles

In [190...

```
yeni_df=df.drop([103,102])
yeni_df
```

Out[190...

	Çalışan ID	İsim	Maaş	Departman	Konum
Departman ID					
101	1	Alice	60000	Marketing	New York
101	3	Charlie	70000	Marketing	New York

In [194...

```
#sütun kaldırma  
yeni_df=df.drop("Konum", axis=1)  
yeni_df
```

Out[194...

	Çalışan ID	İsim	Maaş	Departman
Departman ID				
101	1	Alice	60000	Marketing
102	2	Bob	50000	Sales
101	3	Charlie	70000	Marketing
103	4	David	48000	HR
102	5	Eve	52000	Sales

In []: