

```
In [1]: import pandas as pd
data = {"name": ["Smith", "Kohli", "Kane", "Root"], "age": [23, 24, 25, 26]}
df = pd.DataFrame(data)
print(df)
```

	name	age
0	Smith	23
1	Kohli	24
2	Kane	25
3	Root	26

```
In [2]: import pandas as pd
s = pd.Series([1, 3, 5, 7, 9])
print(s)
```

0	1
1	3
2	5
3	7
4	9

dtype: int64

```
In [3]: import pandas as pd
data = [10, 20, 30, 40, 50]
df = pd.DataFrame(data, columns=["Numbers"])
print(df)
```

	Numbers
0	10
1	20
2	30
3	40
4	50

```
In [4]: import pandas as pd
data = {"col1": [1, 2, 3], "col2": [4, 5, 6]}
df = pd.DataFrame(data)
print(df.head(2))
```

	col1	col2
0	1	4
1	2	5

```
In [5]: import pandas as pd
s = pd.Series([1, 2, 3, 4, 5], index=["a", "b", "c", "d", "e"])
print(s)
```

a	1
b	2
c	3
d	4
e	5

dtype: int64

```
In [6]: import pandas as pd
s = pd.Series([10, 20, 30, 40, 50])
print(s[1:4])
```

```
1    20
2    30
3    40
dtype: int64
```

```
In [10]: import pandas as pd
data = {"Product": ["A", "B", "C"], "Price": [10, 20, 30], "Quantity": [100, 150, 200]}
df = pd.DataFrame(data)
print(df)
```

	Product	Price	Quantity
0	A	10	100
1	B	20	150
2	C	30	200

```
In [11]: import pandas as pd
data = {"A": [1, 2, 3], "B": [4, 5, 6]}
df = pd.DataFrame(data)
df['C'] = df['A'] + df['B']
print(df)
```

	A	B	C
0	1	4	5
1	2	5	7
2	3	6	9

```
In [12]: import pandas as pd
data = {"Name": ["Smith", "Kohli", "Root"], "Age": [25, 30, 35], "Score": [85, 90, 95]}
df = pd.DataFrame(data)
df = df.set_index("Name")
print(df)
```

	Age	Score
Name		
Smith	25	85
Kohli	30	90
Root	35	95

```
In [13]: import pandas as pd
data = {"X": [10, 20, 30], "Y": [40, 50, 60]}
df = pd.DataFrame(data)
df["Z"] = df["X"] * df["Y"]
print(df)
```

	X	Y	Z
0	10	40	400
1	20	50	1000
2	30	60	1800

```
In [17]: import pandas as pd
data = {"Name": ["Smith", "Smriti", "Kohli"], "Age": [28, 24, 32], "Gender": ["Male", "Female", "Male"]}
df = pd.DataFrame(data)
df = df.drop(columns=["Gender"])
print(df)
```

	Name	Age
0	Smith	28
1	Smriti	24
2	Kohli	32

```
In [18]: import pandas as pd
data = {"Name": ["Smith", "Kane", "Root"], "Age": [28, 24, 32], "Score": [85, 88, 92]}
df = pd.DataFrame(data)
df = df[df["Age"] > 25]
print(df)
```

	Name	Age	Score
0	Smith	28	85
2	Root	32	92

```
In [21]: import pandas as pd
data = {"A": [5, 6, 7], "B": [10, 20, 30], "C": [50, 60, 70]}
df = pd.DataFrame(data)
df = df.rename(columns={"A": "catches", "B": "Wickets", "C": "Runs"})
print(df)
```

	catches	Wickets	Runs
0	5	10	50
1	6	20	60
2	7	30	70

```
In [22]: import pandas as pd
data1 = {"ID": [1, 2, 3], "Name": ["Smith", "Ben", "Jana"]}
data2 = {"ID": [1, 2, 3], "Score": [90, 85, 88]}
df1 = pd.DataFrame(data1)
df2 = pd.DataFrame(data2)
df = pd.merge(df1, df2, on="ID")
print(df)
```

	ID	Name	Score
0	1	Smith	90
1	2	Ben	85
2	3	Jana	88

```
In [23]: import pandas as pd
data = {"A": [1, 2, 3], "B": [4, 5, 6], "C": [7, 8, 9]}
df = pd.DataFrame(data)
df["D"] = df.sum(axis=1)
print(df)
```

	A	B	C	D
0	1	4	7	12
1	2	5	8	15
2	3	6	9	18

```
In [24]: import pandas as pd
data = {"A": [3, 2, 1], "B": [6, 5, 4], "C": [9, 8, 7]}
df = pd.DataFrame(data)
df = df.sort_values(by="A", ascending=False)
print(df)
```

	A	B	C
0	3	6	9
1	2	5	8
2	1	4	7

```
In [25]: import pandas as pd
data = {"A": [1, 2, 3], "B": [4, 5, 6], "C": [7, 8, 9]}
df = pd.DataFrame(data)
df["B"] = df["B"].apply(lambda x: x * 2)
print(df)
```

	A	B	C
0	1	8	7
1	2	10	8
2	3	12	9

```
In [26]: import pandas as pd
data = {"Product": ["A", "B", "C", "A"], "Price": [10, 20, 30, 40]}
df = pd.DataFrame(data)
grouped = df.groupby("Product").mean()
print(grouped)
```

	Price
Product	
A	25.0
B	20.0
C	30.0

```
In [29]: import pandas as pd
data = {"Name": ["Jana", "Dhanshu", "Devi", "Mahi"], "Score": [85, 90, 95, 88]}
df = pd.DataFrame(data)
pivot = df.pivot_table(values="Score", index="Name", aggfunc="mean")
print(pivot)
```

	Score
Name	
Devi	95
Dhanshu	90
Jana	85
Mahi	88

```
In [30]: import pandas as pd
data = {"A": [1, 2, 3], "B": [None, 2, 3]}
df = pd.DataFrame(data)
df.fillna(0, inplace=True)
print(df)
```

	A	B
0	1	0.0
1	2	2.0
2	3	3.0

```
In [ ]:
```