

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

```
In [4]: students={"name": ['rohit', 'roshan', 'aniket', 'sanskar', 'sham', 'swanand', 'saket', 'nikhil'] , 'Marks': [78,88,25,88,97,84,66,55]}
```

```
In [5]: stud=pd.DataFrame(students)
```

```
In [6]: print("DataFrame:\n",stud)
```

```
DataFrame:
   name  Marks
0  rohit    78
1  roshan   88
2  aniket   25
3  sanskar   88
4   sham   97
5  swanand   84
6   saket   66
7  nikhil   55
```

```
In [7]: print(stud.loc[[0,1,6]])
```

```
   name  Marks
0  rohit    78
1  roshan   88
6   saket   66
```

```
In [8]: print(stud.loc[0:4])
```

```
   name  Marks
0  rohit    78
1  roshan   88
2  aniket   25
3  sanskar   88
4   sham   97
```

```
In [9]: print(stud.loc[0:2,['name']])
```

```
      name
0    rohit
1   roshan
2   aniket
```

```
In [10]: print(stud.iloc[[0,1,6],[1]])
```

```
      Marks
0         78
1         88
6         66
```

```
In [11]: #merging
```

```
In [12]: d1={"Name":["rohit","sham","om"],"Country":["India","india","Usa"]}
```

```
In [13]: df1=pd.DataFrame(d1)
```

```
In [14]: print('DataFrame1:\n',df1)
```

```
DataFrame1:
   Name Country
0  rohit   India
1   sham  india
2     om    Usa
```

```
In [15]: d2={"ID":[1,2,3],"Name":["rohit","pankaj","nikhil"]}
```

```
In [16]: df2=pd.DataFrame(d2)
```

```
In [17]: print('DataFrame2:\n',df2)
```

```
DataFrame2:
   ID  Name
0   1  rohit
1   2  pankaj
2   3  nikhil
```

```
In [18]: df_merge=df1.merge(df2)
```

```
In [19]: print("inner join:\n",df_merge)
```

```
inner join:
      Name Country  ID
0  rohit   India    1
```

```
In [20]: print("left join:\n",df1.merge(df2,how='left'))
```

```
left join:
      Name Country  ID
0  rohit   India  1.0
1   sham   india  NaN
2    om     Usa   NaN
```

```
In [21]: print("right join:\n",df1.merge(df2,how='right'))
```

```
right join:
      Name Country  ID
0  rohit   India    1
1  pankaj    NaN    2
2  nikhil    NaN    3
```

```
In [22]: print("outer join:\n",df1.merge(df2,how='outer'))
```

```
outer join:
      Name Country  ID
0  rohit   India  1.0
1   sham   india  NaN
2    om     Usa   NaN
3  pankaj    NaN  2.0
4  nikhil    NaN  3.0
```

```
In [ ]:
```

