In [3]:
```
import pandas as pd
data=pd.read_csv("file.csv")
print(data)
```
```
    Name  Age  Salary
0    RAM   30   30000
1   RAJU   50   45000
2  RADHA   25   50000
3  ARJUN   60   20000
4   AJAY   30   40000
```
In [4]:
```
data["Age"]
```
Out[4]:
```
0    30
1    50
2    25
3    60
4    30
Name: Age, dtype: int64
```
In [5]:
```
data["Age"]>30
```
Out[5]:
```
0    False
1     True
2    False
3     True
4    False
Name: Age, dtype: bool
```
In [6]:
```
data["Age"].max()
```
Out[6]:
```
60
```
In [7]:
```
data["Salary"].min()
```
Out[7]:
```
20000
```
In [8]:
```
data.info()
```
```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 5 entries, 0 to 4
Data columns (total 3 columns):
 #   Column  Non-Null Count  Dtype
---  ------  --------------  -----
 0   Name    5 non-null      object
 1   Age     5 non-null      int64
 2   Salary  5 non-null      int64
dtypes: int64(2), object(1)
memory usage: 248.0+ bytes
```
In [21]:
```
data[["Age","Salary"]]
```
Out[21]:

	Age	Salary
0	30	30000
1	50	45000
2	25	50000
3	60	20000
4	30	40000

In [10]:
```
data
```
Out[10]:

	Name	Age	Salary
0	RAM	30	30000
1	RAJU	50	45000
2	RADHA	25	50000
3	ARJUN	60	20000
4	AJAY	30	40000

In [13]:
```
data.head(3)
```
Out[13]:

	Name	Age	Salary
0	RAM	30	30000
1	RAJU	50	45000
2	RADHA	25	50000

In [12]:
```
data.tail(2)
```
Out[12]:

	Name	Age	Salary
3	ARJUN	60	20000
4	AJAY	30	40000

In [15]:
```
type(data)
```
Out[15]:
```
pandas.core.frame.DataFrame
```
In [16]:
```
data.shape
```
Out[16]:
```
(5, 3)
```
In [18]:
```
data.describe()
```
Out[18]:

	Age	Salary
count	5.000000	5.000000
mean	39.000000	37000.000000
std	15.165751	12041.594579
min	25.000000	20000.000000
25%	30.000000	30000.000000
50%	30.000000	40000.000000
75%	50.000000	45000.000000
max	60.000000	50000.000000

In [5]:
```
data.loc[4]
```
Out[5]:
```
Name       AJAY
Age          30
Salary    40000
Name: 4, dtype: object
```
In [8]:
```
print(data.loc[data["Age"]>20])
```
```
    Name  Age  Salary
0    RAM   30   30000
1   RAJU   50   45000
2  RADHA   25   50000
3  ARJUN   60   20000
4   AJAY   30   40000
```
In [11]:
```
data["Adress"]=["a","b","c","d","e"]
data
```
Out[11]:

	Name	Age	Salary	Adress
0	RAM	30	30000	a
1	RAJU	50	45000	b
2	RADHA	25	50000	c
3	ARJUN	60	20000	d
4	AJAY	30	40000	e

In [12]:
```
data["Age"]=0
data
```
Out[12]:

	Name	Age	Salary	Adress
0	RAM	0	30000	a
1	RAJU	0	45000	b
2	RADHA	0	50000	c
3	ARJUN	0	20000	d
4	AJAY	0	40000	e

In [15]:
```
df=data[(data["Age"]==0)&(data["Salary"]>30000)]
df
```
Out[15]:

	Name	Age	Salary	Adress
1	RAJU	0	45000	b
2	RADHA	0	50000	c
4	AJAY	0	40000	e

In [16]:
```
df["Name"]
```
Out[16]:
```
1     RAJU
2    RADHA
4     AJAY
Name: Name, dtype: object
```
In [3]:
```
import pandas as pd
data=pd.read_csv("file.csv")
print(data)
data.to_excel("record.xlsx",sheet_name="s1")
a=pd.read_excel("record.xlsx")
a
```
```
    Name  Age  Salary
0    RAM   30   30000
1   RAJU   50   45000
2  RADHA   25   50000
3  ARJUN   60   20000
4   AJAY   30   40000
```
Out[3]:

	Unnamed: 0	Name	Age	Salary
0	0	RAM	30	30000
1	1	RAJU	50	45000
2	2	RADHA	25	50000
3	3	ARJUN	60	20000
4	4	AJAY	30	40000

In [4]:
```
a.info()
```
```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 5 entries, 0 to 4
Data columns (total 4 columns):
 #   Column      Non-Null Count  Dtype
---  ------      --------------  -----
 0   Unnamed: 0  5 non-null      int64
 1   Name        5 non-null      object
 2   Age         5 non-null      int64
 3   Salary      5 non-null      int64
dtypes: int64(3), object(1)
memory usage: 288.0+ bytes
```
In [13]:
```
a.dtypes
```
Out[13]:
```
Unnamed: 0     int64
Name          object
Age            int64
Salary         int64
dtype: object
```
In [15]:
```
x=a[["Name","Salary"]]
x
```
Out[15]:

	Name	Salary
0	RAM	30000
1	RAJU	45000
2	RADHA	50000
3	ARJUN	20000
4	AJAY	40000

In [17]:
```
a.shape
```
Out[17]:
```
(5, 4)
```
In [18]:
```
type(a[["Name","Salary"]])
```
Out[18]:
```
pandas.core.frame.DataFrame
```
In [27]:
```
x=a[a["Age"].isin([30,25])]
x
```
Out[27]:

	Unnamed: 0	Name	Age	Salary
0	0	RAM	30	30000
2	2	RADHA	25	50000
4	4	AJAY	30	40000

In [26]:
```
s=a[(a["Age"]==35)|(a["Salary"]==30000)]
s
```
Out[26]:

	Unnamed: 0	Name	Age	Salary
0	0	RAM	30	30000

In [5]:
```
import pandas as pd
a=pd.read_csv('file.csv')
a.drop(["Salary"],axis=1,inplace=True)
print(a)
```
```
    Name  Age
0    RAM   30
1   RAJU   50
2  RADHA   25
3  ARJUN   60
4   AJAY   30
```
In [14]:
```
new_row=pd.DataFrame({'Name':'Deepika','Age':30},index=[0])
a=pd.concat([new_row,a]).reset_index(drop=True)
print(a)
```
```
       Name  Age
0   Deepika   30
1   Deepika   30
2   Deepika   30
3   Deepika   30
4   Deepika   30
5   Deepika   30
6   Deepika   30
7       RAM   30
8      RAJU   50
9     RADHA   25
10    ARJUN   60
11     AJAY   30
```
In [47]:
```
a=pd.read_csv('file.csv',index_col='Name')
a.drop(['RAM'],inplace=True)
a
```
Out[47]:

Name	Age	Salary
RAJU	50	45000
RADHA	25	50000
ARJUN	60	20000
AJAY	30	40000

In [48]:
```
print(a.columns)
```
```
Index(['Age', 'Salary'], dtype='object')
```
In [49]:
```
print(a.keys())
print(a.columns.values)
print(a.columns.values.tolist())
```
```
Index(['Age', 'Salary'], dtype='object')
['Age' 'Salary']
['Age', 'Salary']
```
In [50]:
```
sorted(a)
```
Out[50]:
```
['Age', 'Salary']
```
In [51]:
```
a.rename(columns={'Age':'age'},inplace=True)
a
```
Out[51]:

Name	age	Salary
RAJU	50	45000
RADHA	25	50000
ARJUN	60	20000
AJAY	30	40000

In [1]:
```
import pandas as pd
df=pd.read_csv("details.csv")
df
```
Out[1]:

	Name	Age	Salary
0	deepika	20	40000
1	gayathri	19	30000
2	usha	19	35000
3	radhika	21	50000
4	raju	25	60000

In [2]:
```
df.head(2)
```
Out[2]:

	Name	Age	Salary
0	deepika	20	40000
1	gayathri	19	30000

In [3]:
```
df.tail(2)
```
Out[3]:

	Name	Age	Salary
3	radhika	21	50000
4	raju	25	60000

In [4]:
```
df.dtypes.value_counts()
```
Out[4]:
```
int64     2
object    1
dtype: int64
```
In [7]:
```
df.to_excel("details.xlsx",index=False)
d=pd.read_excel("details.xlsx")
d
```
Out[7]:

	Name	Age	Salary
0	deepika	20	40000
1	gayathri	19	30000
2	usha	19	35000
3	radhika	21	50000
4	raju	25	60000

In [8]:
```
x=d["Age"]
x.head(3)
```
Out[8]:
```
0    20
1    19
2    19
Name: Age, dtype: int64
```
In [9]:
```
type(d["Age"])
```
Out[9]:
```
pandas.core.series.Series
```
In [10]:
```
d["Age"].shape
```
Out[10]:
```
(5,)
```
In [11]:
```
x=d[["Age","Salary"]]
x.head(2)
```
Out[11]:

	Age	Salary
0	20	40000
1	19	30000

In [12]:
```
type(d[["Age","Salary"]])
```
Out[12]:
```
pandas.core.frame.DataFrame
```
In [13]:
```
d[["Age","Salary"]].shape
```
Out[13]:
```
(5, 2)
```
In [14]:
```
df["Age"]>20
```
Out[14]:
```
0    False
1    False
2    False
3     True
4     True
Name: Age, dtype: bool
```
In [15]:
```
x=df[(df["Age"].isin([2,21]))]
x
```
Out[15]:

	Name	Age	Salary
3	radhika	21	50000

In [16]:
```
x=df[df["Age"].notna()]
x
```
Out[16]:

	Name	Age	Salary
0	deepika	20	40000
1	gayathri	19	30000
2	usha	19	35000
3	radhika	21	50000
4	raju	25	60000

In [19]:
```
df.replace('raasi','rani',inplace=True)
df.at[3,"Name"]="radhika"
df.iloc[[0,1,4],[2]]=15
df
```
Out[19]:

	Name	Age	Salary
0	deepika	20	15
1	gayathri	19	15
2	usha	19	35000
3	radhika	21	50000
4	raju	25	15

In [20]:
```
x=df.loc[df["Age"]>20,'Salary']
x
```
Out[20]:
```
3    50000
4       15
Name: Salary, dtype: int64
```
In [ ]: