In [20]:
```
import pandas as pd
import numpy as np
```

In [ ]:
```

```

In [21]:
```
d={'USN':[100,23,245],
   'NAME':['NIKI','HARSISHA','ASH'],
   'MOBLIE':[24,45,67],
   'MARKS':[88,99,56]
  }
```

In [22]:
```
std=pd.DataFrame(d)
```

In [23]:
```
std
```

Out[23]:

	USN	NAME	MOBLIE	MARKS
0	100	NIKI	24	88
1	23	HARSISHA	45	99
2	245	ASH	67	56

In [24]:
```
std.head(2)
#displaying rows
```

Out[24]:

	USN	NAME	MOBLIE	MARKS
0	100	NIKI	24	88
1	23	HARSISHA	45	99

In [25]:
```
std.info()
#gives all info about df
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 3 entries, 0 to 2
Data columns (total 4 columns):
 #   Column  Non-Null Count  Dtype
---  ------  --------------  -----
 0   USN     3 non-null      int64
 1   NAME    3 non-null      object
 2   MOBLIE  3 non-null      int64
 3   MARKS   3 non-null      int64
dtypes: int64(3), object(1)
memory usage: 224.0+ bytes
```

In [26]:
```
std.columns
#displays columns
```

Out[26]:
```
Index(['USN', 'NAME', 'MOBLIE', 'MARKS'], dtype='object')
```

In [27]:
```
std.isnull()
```

Out[27]:

	USN	NAME	MOBLIE	MARKS
0	False	False	False	False
1	False	False	False	False
2	False	False	False	False

In [28]:
```
#access columns
std['USN']
```

Out[28]:
```
0    100
1     23
2    245
Name: USN, dtype: int64
```

In [29]:
```
#acsess mutlple col
std[['USN','MARKS']]
```

Out[29]:

	USN	MARKS
0	100	88
1	23	99
2	245	56

In [30]:
```
#access rows
std.loc[1]
```

Out[30]:
```
USN             23
NAME       HARSISHA
MOBLIE             45
MARKS              99
Name: 1, dtype: object
```

In [31]:
```
#create a df cars having a attributes car id,car name,it should have 5 values
d={"car_id":[23456,7448,2345,7890,5627],
   "car_name":["swift","kiv","ford","BMW","mg"]}
```

In [32]:
```
df=pd.DataFrame(d)
```

In [33]:
```
df
```

Out[33]:

	car_id	car_name
0	23456	swift
1	7448	kiv
2	2345	ford
3	7890	BMW
4	5627	mg

In [34]:
```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 5 entries, 0 to 4
Data columns (total 2 columns):
 #   Column    Non-Null Count  Dtype 
---  ------    --------------  ----- 
 0   car_id    5 non-null      int64 
 1   car_name  5 non-null      object
dtypes: int64(1), object(1)
memory usage: 208.0+ bytes
```

In [35]:
```
f={"car_id":[23456,7448,2345,7890,5627,3456],
   "car_name":["swift","kiv","ford","BMW","MG",None]}
```

In [36]:
```
gh=pd.DataFrame(f)
```

In [37]:
```
gh
```

Out[37]:

	car_id	car_name
0	23456	swift
1	7448	kiv
2	2345	ford
3	7890	BMW
4	5627	MG
5	3456	None

In [38]:
```
gh.isnull()
```

Out[38]:

	car_id	car_name
0	False	False
1	False	False
2	False	False
3	False	False
4	False	False
5	False	True

In [39]:
```
gh.loc[2]
```

Out[39]:
```
car_id      2345
car_name    ford
Name: 2, dtype: object
```

In [40]:
```
gh.iloc[2]
```

Out[40]:
```
car_id      2345
car_name    ford
Name: 2, dtype: object
```

In [41]:
```
gh.set_index('car_id')
```

Out[41]:

car_id	car_name
23456	swift
7448	kiv
2345	ford
7890	BMW
5627	MG
3456	None

In [42]:
```
#conditional selection
gh['car_id']<5600
```

Out[42]:
```
0    False
1    False
2     True
3    False
4    False
5     True
Name: car_id, dtype: bool
```

In [43]:
```
newdf=gh['car_id']<5600
```

In [44]:
```
gh[newdf]['car_name']
```

Out[44]:
```
2    ford
5    None
Name: car_name, dtype: object
```

In [45]:
```
gh[newdf]["car_id"]
```

Out[45]:
```
2    2345
5    3456
Name: car_id, dtype: int64
```

In [46]:
```
d={'USN':[100,23,245],
   'NAME':['NIKI','HARSISHA','ASH'],
   'MOBLIE':[24,45,67],
   'MARKS':[88,99,"none"]
  }
```

In [47]:
```
jk=pandas.DataFrame(d)
```

In [48]:
```
jk
```

Out[48]:

	USN	NAME	MOBLIE	MARKS
0	100	NIKI	24	88
1	23	HARSISHA	45	99
2	245	ASH	67	none

In [55]:
```
import  pandas as pd
```

In [56]:
```
d={'USN':[100,23,245],
   'NAME':['NIKI','HARSISHA','ASH'],
   'MOBLIE':[24,45,67],
   'MARKS':[88,99,56]
  }
```

In [60]:
```
df=pd.DataFrame(d)
```

In [61]:
```
[(df['USN']>40)&(df['MARKS']>50)]
```

Out[61]:
```
[0     True
 1    False
 2     True
 dtype: bool]
```

In [50]:
```
jk
```

Out[50]:

	USN	NAME	MOBLIE	MARKS
0	100	NIKI	24	88
1	23	HARSISHA	45	99
2	245	ASH	67	none

In [98]:
```
jk.dropna()
```

Out[98]:

	USN	NAME	MOBLIE	MARKS
0	100	NIKI	24	88
1	23	HARSISHA	45	99
2	245	ASH	67	none

In [99]:
```
f={"car_id":[23456,7448,2345,7890,5627,3456],
   "car_name":["swift","kiv","ford","BMW","MG",None]}
```

In [101…
```
df=pd.DataFrame(f)
```

In [102…
```
df
```

Out[102]:

	car_id	car_name
0	23456	swift
1	7448	kiv
2	2345	ford
3	7890	BMW
4	5627	MG
5	3456	None

In [103…
```
df.dropna()
```

Out[103]:

	car_id	car_name
0	23456	swift
1	7448	kiv
2	2345	ford
3	7890	BMW
4	5627	MG

In [109…
```
df.dropna(thresh=3)
```

Out[109]:

	car_id	car_name

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

In [4]:
```
d={"car_id":[23456,7448,2345,7890,5627],
   "car_name":["swift","kiv","ford","BMW","mg"]}
```

In [5]:
```
df=pandas.DataFrame(d)
```

In [6]:
```
df.dropna(thresh=2)
```

Out[6]:

	car_id	car_name
0	23456	swift
1	7448	kiv
2	2345	ford
3	7890	BMW
4	5627	mg

In [1]:
```
import pandas as pd
import numpy as np
```

In [50]:
```
f={"name":["tiny","her","uysha","pou"],
   "usn":[21,45,67,89]}
```

In [51]:
```
er=pd.DataFrame(f)
er
```

Out[51]:

	name	usn
0	tiny	21
1	her	45
2	uysha	67
3	pou	89

In [52]:
```
g={"dept":["cse","ai","ds"]}
gf=pd.DataFrame(g)
gf
```

Out[52]:

	dept
0	cse
1	ai
2	ds

In [53]:
```
pd.concat([er,gf])
```

Out[53]:

	name	usn	dept
0	tiny	21.0	NaN
1	her	45.0	NaN
2	uysha	67.0	NaN
3	pou	89.0	NaN
0	NaN	NaN	cse
1	NaN	NaN	ai
2	NaN	NaN	ds

In [43]:
```
#create a two dfs merge them using inner join common col 3
```

In [ ]:
```

```

In [38]:
```
f={"name":["tiny","her","uysha","kil"],
   "marks":[45,67,89,90]}
```

In [39]:
```
er=pd.DataFrame(f)
er
```

Out[39]:

	name	marks
0	tiny	45
1	her	67
2	uysha	89
3	kil	90

In [40]:
```
pd.merge(k,er,how="inner",on="marks")
```

Out[40]:

	student	marks	name
0	shu	45	tiny
1	ghy	67	her
2	gye	89	uysha

In [41]:
```
pd.merge(k,er,how="left",on="marks")
```

Out[41]:

	student	marks	name
0	shu	45	tiny
1	ghy	67	her
2	gye	89	uysha

In [42]:
```
pd.merge(k,er,how="right",on="marks")
```

Out[42]:

	student	marks	name
0	shu	45	tiny
1	ghy	67	her
2	gye	89	uysha
3	NaN	90	kil

In [45]:
```
f={"name":["tiny","her","uysha","pou"],
   "usn":[21,45,67,89]}
f1={"name":["tiny","her","uysha","kil","rajesh"],
   "marks":[45,67,89,90,87]}
er=pd.DataFrame(f)
e1r=pd.DataFrame(f1)
```

In [47]:
```
pd.merge(er,e1r,how="right",on="name")
```

Out[47]:

	name	usn	marks
0	tiny	21.0	45
1	her	45.0	67
2	uysha	67.0	89
3	kil	NaN	90
4	rajesh	NaN	87

In [49]:
```
pd.merge(er,e1r,how="left",on="name")
```

Out[49]:

	name	usn	marks
0	tiny	21	45.0
1	her	45	67.0
2	uysha	67	89.0
3	pou	89	NaN

In [2]:
```
import pandas as pd
import numpy as np
```

In [11]:
```
f={"name":["tiny","her","uysha","pou"],
   "usn":[21,45,67,89]}
f1={"student":["tiny","her","uysha","kil","rajesh"],
   "marks":[45,67,89,90,87]}
er=pd.DataFrame(f)
e1r=pd.DataFrame(f1)
```

In [7]:
```
pd.merge(er,e1r,how="inner",on="name")
```

Out[7]:

	name	usn	marks
0	tiny	21	45
1	her	45	67
2	uysha	67	89

In [12]:
```
er.join(e1r)
```

Out[12]:

	name	usn	student	marks
0	tiny	21	tiny	45
1	her	45	her	67
2	uysha	67	uysha	89
3	pou	89	kil	90

In [13]:
```
import pandas as pd
import numpy as np
```

In [17]:
```
df=pd.read_csv("C:/Users/User/Downloads/billionaire.csv")
df
```

Out[17]:

	Unnamed: 0	name	last_name	age	gender	time	permanent_country	company	main_ind
0	675	Abdulla bin Ahmad Al Ghurair	Al Ghurair	67	M	2013	United Arab Emirates-Dubai	Mashreq Bank	Diver
1	676	Abdulla bin Ahmad Al Ghurair	Al Ghurair	67	M	2013	United Arab Emirates-Dubai	Mashreq Bank	Diver
2	677	Abdulla bin Ahmad Al Ghurair	Al Ghurair	67	M	2013	United Arab Emirates-Dubai	Mashreq Bank	Diver
3	678	Abdulla bin Ahmad Al Ghurair	Al Ghurair	67	M	2013	United Arab Emirates-Dubai	Mashreq Bank	Diver
4	679	Abdulla bin Ahmad Al Ghurair	Al Ghurair	67	M	2013	United Arab Emirates-Dubai	Mashreq Bank	Diver
...	...	...	...	...	...	...	...	...	
352364	358313	Zygmunt Solorz-Zak	Solorz-Zak	65	M	2022	Poland-Warsaw	Cyfrowy Polsat	Me Entertain
352365	358314	Zygmunt Solorz-Zak	Solorz-Zak	65	M	2022	Poland-Warsaw	Cyfrowy Polsat	Me Entertain
352366	358315	Zygmunt Solorz-Zak	Solorz-Zak	65	M	2022	Poland-Warsaw	Cyfrowy Polsat	Me Entertain
352367	358316	Zygmunt Solorz-Zak	Solorz-Zak	65	M	2022	Poland-Warsaw	Cyfrowy Polsat	Me Entertain
352368	358317	Zygmunt Solorz-Zak	Solorz-Zak	65	M	2022	Poland-Warsaw	Cyfrowy Polsat	Me Entertain

352369 rows × 18 columns

In [ ]:

In [ ]: