

In [67]: `import pandas as pd`

In [68]: `data=pd.DataFrame({"id":["r1","m1","s1","y1","f1","l1"],
"class":[10,11,12,13,14,15],
'age':[20,22,21,20,25,30],
'height':[30,34,40,12,24,11],
'name':['ram','mohan','shivu','yash','faizu','lokesh']},index=[1,2,3,4,5,6])`

In [69]: `data`

Out[69]:

	id	class	age	height	name
1	r1	10	20	30	ram
2	m1	11	22	34	mohan
3	s1	12	21	40	shivu
4	y1	13	20	12	yash
5	f1	14	25	24	faizu
6	l1	15	30	11	lokesh

In [70]: `data2=pd.DataFrame({"id":["r1","m1","s1","y1","f1","l1"],
"class":[10,11,12,13,14,15],
'fluency':['high','low','medium','high','low','medium'],
'surname':['kumar','kumar','mishra','jain','ahmed','anand'],
'name':['ram','mohan','shivu','yash','faizu','lokesh']},index=[7,8,9,10,11,12])`

In [71]: `data3=pd.DataFrame({"call":["r1","m1","s1","y1","f1","l1"],
"waiting_time":[10,11,12,13,14,15],
'speed':[32,3,45,67,22,34],
'acceleration':[1,2,3,4,5,6],
'lastname':['kumar','lost','ahmed','mishra','jain','anand']},index=[1,2,3,4,5,6])`

In [72]: `data2`

Out[72]:

	id	class	fluency	surname	name
7	r1	10	high	kumar	ram
8	m1	11	low	kumar	mohan
9	s1	12	medium	mishra	shivu
10	y1	13	high	jain	yash
11	f1	14	low	ahmed	faizu
12	l1	15	medium	anand	lokesh

In [73]: `pd.concat([data,data2],axis=0)`

Out[73]:

	id	class	age	height	name	fluency	surname
1	r1	10	20.0	30.0	ram	NaN	NaN
2	m1	11	22.0	34.0	mohan	NaN	NaN
3	s1	12	21.0	40.0	shivu	NaN	NaN
4	y1	13	20.0	12.0	yash	NaN	NaN
5	f1	14	25.0	24.0	faizu	NaN	NaN
6	l1	15	30.0	11.0	lokesh	NaN	NaN
7	r1	10	NaN	NaN	ram	high	kumar
8	m1	11	NaN	NaN	mohan	low	kumar
9	s1	12	NaN	NaN	shivu	medium	mishra
10	y1	13	NaN	NaN	yash	high	jain
11	f1	14	NaN	NaN	faizu	low	ahmed
12	l1	15	NaN	NaN	lokesh	medium	anand

In [74]: `pd.merge(data,data2,how="outer",on="id")`

Out[74]:

	id	class_x	age	height	name_x	class_y	fluency	surname	name_y
0	r1	10	20	30	ram	10	high	kumar	ram
1	m1	11	22	34	mohan	11	low	kumar	mohan
2	s1	12	21	40	shivu	12	medium	mishra	shivu
3	y1	13	20	12	yash	13	high	jain	yash
4	f1	14	25	24	faizu	14	low	ahmed	faizu
5	l1	15	30	11	lokesh	15	medium	anand	lokesh

In [75]: `pd.merge(data,data2,how="inner",on="id")`

Out[75]:

	id	class_x	age	height	name_x	class_y	fluency	surname	name_y
0	r1	10	20	30	ram	10	high	kumar	ram
1	m1	11	22	34	mohan	11	low	kumar	mohan
2	s1	12	21	40	shivu	12	medium	mishra	shivu
3	y1	13	20	12	yash	13	high	jain	yash
4	f1	14	25	24	faizu	14	low	ahmed	faizu
5	l1	15	30	11	lokesh	15	medium	anand	lokesh

In [76]: `data['intelligent']=['yes','no','yes','no','yes','no']`In [77]: `data`

Out[77]:

	id	class	age	height	name	intelligent
1	r1	10	20	30	ram	yes
2	m1	11	22	34	mohan	no
3	s1	12	21	40	shivu	yes
4	y1	13	20	12	yash	no
5	f1	14	25	24	faizu	yes
6	l1	15	30	11	lokesh	no

In [78]: data2['dumb']=['yes','no','yes','no','yes','no']

In [79]: data2

Out[79]:

	id	class	fluency	surname	name	dumb
7	r1	10	high	kumar	ram	yes
8	m1	11	low	kumar	mohan	no
9	s1	12	medium	mishra	shivu	yes
10	y1	13	high	jain	yash	no
11	f1	14	low	ahmed	faizu	yes
12	l1	15	medium	anand	lokesh	no

In [80]: data3.join(data,how='outer')

Out[80]:

	call	waiting_time	speed	acceleration	lastname	id	class	age	height	name	intelligent
1	r1	10	32	1	kumar	r1	10	20	30	ram	yes
2	m1	11	3	2	lost	m1	11	22	34	mohan	no
3	s1	12	45	3	ahmed	s1	12	21	40	shivu	yes
4	y1	13	67	4	mishra	y1	13	20	12	yash	no
5	f1	14	22	5	jain	f1	14	25	24	faizu	yes
6	l1	15	34	6	anand	l1	15	30	11	lokesh	no

In [83]: data3.join(data,how='inner')

Out[83]:

	call	waiting_time	speed	acceleration	lastname	id	class	age	height	name	intelligent
1	r1	10	32	1	kumar	r1	10	20	30	ram	yes
2	m1	11	3	2	lost	m1	11	22	34	mohan	no
3	s1	12	45	3	ahmed	s1	12	21	40	shivu	yes
4	y1	13	67	4	mishra	y1	13	20	12	yash	no
5	f1	14	22	5	jain	f1	14	25	24	faizu	yes
6	l1	15	34	6	anand	l1	15	30	11	lokesh	no

In [82]: `pd.merge(data,data2,how='left',on='id')`

Out[82]:

	id	class_x	age	height	name_x	intelligent	class_y	fluency	surname	name_y	dumb
0	r1	10	20	30	ram	yes	10	high	kumar	ram	yes
1	m1	11	22	34	mohan	no	11	low	kumar	mohan	no
2	s1	12	21	40	shivu	yes	12	medium	mishra	shivu	yes
3	y1	13	20	12	yash	no	13	high	jain	yash	no
4	f1	14	25	24	faizu	yes	14	low	ahmed	faizu	yes
5	l1	15	30	11	lokesh	no	15	medium	anand	lokesh	no

In [36]: `pd.merge(data,data2,how='right',on='id')`

Out[36]:

	id	class	age	height	name_x	intelligent	level	fluency	surname	name_y	dumb
0	r1	10	20	30	ram	yes	10	high	kumar	ram	yes
1	m1	11	22	34	mohan	no	11	low	kumar	mohan	no
2	s1	12	21	40	shivu	yes	12	medium	mishra	shivu	yes
3	y1	13	20	12	yash	no	13	high	jain	yash	no
4	f1	14	25	24	faizu	yes	14	low	ahmed	faizu	yes
5	l1	15	30	11	lokesh	no	15	medium	anand	lokesh	no

In []: