

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

comp=pd.read_csv("computer_hardware_dataset.csv")
comp.head()
```

```
Out[1]:
```

	vendor_name	model_name	MYCT	MMIN	MMAX	CACH	CHMIN	CHMAX	PRP	ERP
0	adviser	32/60	125	256	6000	256	16	128	198	199
1	amdahl	470v/7	29	8000	32000	32	8	32	269	253
2	amdahl	470v/7a	29	8000	32000	32	8	32	220	253
3	amdahl	470v/7b	29	8000	32000	32	8	32	172	253
4	amdahl	470v/7c	29	8000	16000	32	8	16	132	132

In [11]: comp

Out[11]:

	vendor_name	model_name	MYCT	MMIN	MMAX	CACH	CHMIN	CHMAX	PRP	ERP
0	adviser	32/60	125	256	6000	256	16	128	198	199
1	amdahl	470v/7	29	8000	32000	32	8	32	269	253
2	amdahl	470v/7a	29	8000	32000	32	8	32	220	253
3	amdahl	470v/7b	29	8000	32000	32	8	32	172	253
4	amdahl	470v/7c	29	8000	16000	32	8	16	132	132
...
204	sperry	80/8	124	1000	8000	0	1	8	42	37
205	sperry	90/80-model-3	98	1000	8000	32	2	8	46	50
206	sratus	32	125	2000	8000	0	2	14	52	41
207	wang	vs-100	480	512	8000	32	0	0	67	47
208	wang	vs-90	480	1000	4000	0	0	0	45	25

209 rows × 10 columns

In [9]: `comp["vendor_name"].duplicated()`

Out[9]:

```

0      False
1      False
2       True
3       True
4       True
...
204     True
205     True
206     False
207     False
208     True
Name: vendor_name, Length: 209, dtype: bool

```

In [13]: `comp[~comp["vendor_name"].duplicated(keep=False)]`

Out[13]:

	vendor_name	model_name	MYCT	MMIN	MMAx	CACH	CHMIN	CHMAX	PRP	ERP
0	adviser	32/60	125	256	6000	256	16	128	198	199
62	four-phase	2000/260	125	512	1000	0	8	20	36	19
137	microdata	seq.ms/3200	150	512	4000	0	8	128	30	33
206	sratus	32	125	2000	8000	0	2	14	52	41

In [20]: `comp[~comp["vendor_name"].duplicated()]`

Out[20]:

	vendor_name	model_name	MYCT	MMIN	MMAX	CACH	CHMIN	CHMAX	PRP	ERP
0	adviser	32/60	125	256	6000	256	16	128	198	199
1	amdahl	470v/7	29	8000	32000	32	8	32	269	253
10	apollo	dn320	400	1000	3000	0	1	2	38	23
12	basf	7/65	60	2000	8000	65	1	8	92	70
14	bti	5000	350	64	64	0	1	4	10	15
16	burroughs	b1955	167	524	2000	8	4	15	19	23
24	c.r.d	68/10-80	320	128	6000	0	1	12	23	28
30	cdc	cyber:170/750	25	1310	2620	131	12	24	274	102
39	cambex	1636-1	50	1000	4000	8	3	5	26	30
44	dec	decsys:10:1091	133	1000	12000	9	3	12	72	54
50	dg	eclipse:c/350	700	384	8000	0	1	1	24	34
57	formation	f4000/100	800	256	8000	0	1	4	12	34
62	four-phase	2000/260	125	512	1000	0	8	20	36	19
63	gould	concept:32/8705	75	2000	8000	64	1	38	144	75
66	hp	3000/30	90	256	1000	0	3	10	17	18
73	harris	100	300	768	3000	0	6	24	36	23
80	honeywell	dps:6/35	330	1000	3000	0	2	4	16	23
93	ibm	3033:s	57	4000	16000	1	6	12	132	82
125	ipl	4436	50	2000	4000	0	3	6	27	30
131	magnuson	m80/30	100	1000	8000	0	2	6	16	37
137	microdata	seq.ms/3200	150	512	4000	0	8	128	30	33

	vendor_name	model_name	MYCT	MMIN	MMAX	CACH	CHMIN	CHMAX	PRP	ERP
138	nas	as/3000	115	2000	8000	16	1	3	50	46
157	ncr	v8535:ii	112	1000	1000	0	1	4	8	19
170	nixdorf	8890/30	200	1000	2000	0	1	2	25	21
173	perkin-elmer	3205	250	512	4000	0	1	7	25	24
176	prime	50-2250	160	512	4000	2	1	5	30	25
181	siemens	7.521	240	512	1000	8	1	3	6	19
193	sperry	1100/61-h1	116	2000	8000	32	5	28	70	56
206	sratus	32	125	2000	8000	0	2	14	52	41
207	wang	vs-100	480	512	8000	32	0	0	67	47

In [22]: *# drop_duplicates method in pandas*

```
comp.drop_duplicates(subset=["vendor_name"],keep=False)
```

Out[22]:

	vendor_name	model_name	MYCT	MMIN	MMAX	CACH	CHMIN	CHMAX	PRP	ERP
0	adviser	32/60	125	256	6000	256	16	128	198	199
62	four-phase	2000/260	125	512	1000	0	8	20	36	19
137	microdata	seq.ms/3200	150	512	4000	0	8	128	30	33
206	sratus	32	125	2000	8000	0	2	14	52	41

In [21]: *# drop_duplicates method in pandas*

```
comp.drop_duplicates(subset=["vendor_name"])
```

Out[21]:

	vendor_name	model_name	MYCT	MMIN	MMAX	CACH	CHMIN	CHMAX	PRP	ERP
0	adviser	32/60	125	256	6000	256	16	128	198	199
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14	bti	5000	350	64	64	0	1	4	10	15
16	burroughs	b1955	167	524	2000	8	4	15	19	23
24	c.r.d	68/10-80	320	128	6000	0	1	12	23	28
30	cdc	cyber:170/750	25	1310	2620	131	12	24	274	102
39	cambex	1636-1	50	1000	4000	8	3	5	26	30
44	dec	decsys:10:1091	133	1000	12000	9	3	12	72	54
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62	four-phase	2000/260	125	512	1000	0	8	20	36	19
63	gould	concept:32/8705	75	2000	8000	64	1	38	144	75
66	hp	3000/30	90	256	1000	0	3	10	17	18
73	harris	100	300	768	3000	0	6	24	36	23
80	honeywell	dps:6/35	330	1000	3000	0	2	4	16	23
93	ibm	3033:s	57	4000	16000	1	6	12	132	82
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138	nas	as/3000	115	2000	8000	16	1	3	50	46
157	ncr	v8535:ii	112	1000	1000	0	1	4	8	19
170	nixdorf	8890/30	200	1000	2000	0	1	2	25	21
173	perkin-elmer	3205	250	512	4000	0	1	7	25	24
176	prime	50-2250	160	512	4000	2	1	5	30	25
181	siemens	7.521	240	512	1000	8	1	3	6	19
193	sperry	1100/61-h1	116	2000	8000	32	5	28	70	56
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