Name: Shubham Shigwan
Email: shubhamshigwan2k@gmail.com

Excercise 1

In [ ]:

```
import pandas as pd
```

In [ ]:

```
car = pd.read_csv('https://github.com/YBI-Foundation/Dataset/raw/main/MPG.csv')
```

In [ ]:

```
car
```

Out[ ]:

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
0	18.0	8	307.0	130.0	3504	12.0	70	usa	c
1	15.0	8	350.0	165.0	3693	11.5	70	usa	
2	18.0	8	318.0	150.0	3436	11.0	70	usa	p
3	16.0	8	304.0	150.0	3433	12.0	70	usa	
4	17.0	8	302.0	140.0	3449	10.5	70	usa	
...	...	...	...	...	...	...	...	...	
393	27.0	4	140.0	86.0	2790	15.6	82	usa	r
394	44.0	4	97.0	52.0	2130	24.6	82	europe	
395	32.0	4	135.0	84.0	2295	11.6	82	usa	r
396	28.0	4	120.0	79.0	2625	18.6	82	usa	
397	31.0	4	119.0	82.0	2720	19.4	82	usa	

398 rows × 9 columns

In [ ]:

```
car.head(10)
```

Out[ ]:

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
0	18.0	8	307.0	130.0	3504	12.0	70	usa	c
1	15.0	8	350.0	165.0	3693	11.5	70	usa	sky
2	18.0	8	318.0	150.0	3436	11.0	70	usa	p
3	16.0	8	304.0	150.0	3433	12.0	70	usa	ar
4	17.0	8	302.0	140.0	3449	10.5	70	usa	fo
5	15.0	8	429.0	198.0	4341	10.0	70	usa	forc
6	14.0	8	454.0	220.0	4354	9.0	70	usa	c
7	14.0	8	440.0	215.0	4312	8.5	70	usa	p
8	14.0	8	455.0	225.0	4425	10.0	70	usa	
9	15.0	8	390.0	190.0	3850	8.5	70	usa	amb

In [ ]:

```
car.tail()
```

Out[ ]:

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
393	27.0	4	140.0	86.0	2790	15.6	82	usa	r
394	44.0	4	97.0	52.0	2130	24.6	82	europe	
395	32.0	4	135.0	84.0	2295	11.6	82	usa	r
396	28.0	4	120.0	79.0	2625	18.6	82	usa	
397	31.0	4	119.0	82.0	2720	19.4	82	usa	

In [ ]:

```
pd.options.display.max_rows = 400
car
```

Out[ ]:

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
0	18.0	8	307.0	130.0	3504	12.0	70	usa	
1	15.0	8	350.0	165.0	3693	11.5	70	usa	
2	18.0	8	318.0	150.0	3436	11.0	70	usa	
3	16.0	8	304.0	150.0	3433	12.0	70	usa	
4	17.0	8	302.0	140.0	3449	10.5	70	usa	
5	15.0	8	429.0	198.0	4341	10.0	70	usa	
6	14.0	8	454.0	220.0	4354	9.0	70	usa	
7	14.0	8	440.0	215.0	4312	8.5	70	usa	
8	14.0	8	455.0	225.0	4425	10.0	70	usa	
9	15.0	8	390.0	190.0	3850	8.5	70	usa	a
10	15.0	8	383.0	170.0	3563	10.0	70	usa	
11	14.0	8	340.0	160.0	3609	8.0	70	usa	
12	15.0	8	400.0	150.0	3761	9.5	70	usa	
13	14.0	8	455.0	225.0	3086	10.0	70	usa	
14	24.0	4	113.0	95.0	2372	15.0	70	japan	c
15	22.0	6	198.0	95.0	2833	15.5	70	usa	
16	18.0	6	199.0	97.0	2774	15.5	70	usa	
17	21.0	6	200.0	85.0	2587	16.0	70	usa	
18	27.0	4	97.0	88.0	2130	14.5	70	japan	
19	26.0	4	97.0	46.0	1835	20.5	70	europe	
20	25.0	4	110.0	87.0	2672	17.5	70	europe	p
21	24.0	4	107.0	90.0	2430	14.5	70	europe	
22	25.0	4	104.0	95.0	2375	17.5	70	europe	
23	26.0	4	121.0	113.0	2234	12.5	70	europe	
24	21.0	6	199.0	90.0	2648	15.0	70	usa	a

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
25	10.0	8	360.0	215.0	4615	14.0	70	usa
26	10.0	8	307.0	200.0	4376	15.0	70	usa
27	11.0	8	318.0	210.0	4382	13.5	70	usa
28	9.0	8	304.0	193.0	4732	18.5	70	usa
29	27.0	4	97.0	88.0	2130	14.5	71	japan
30	28.0	4	140.0	90.0	2264	15.5	71	usa
31	25.0	4	113.0	95.0	2228	14.0	71	japan
32	25.0	4	98.0	NaN	2046	19.0	71	usa
33	19.0	6	232.0	100.0	2634	13.0	71	usa
34	16.0	6	225.0	105.0	3439	15.5	71	usa
35	17.0	6	250.0	100.0	3329	15.5	71	usa
36	19.0	6	250.0	88.0	3302	15.5	71	usa
37	18.0	6	232.0	100.0	3288	15.5	71	usa
38	14.0	8	350.0	165.0	4209	12.0	71	usa
39	14.0	8	400.0	175.0	4464	11.5	71	usa
40	14.0	8	351.0	153.0	4154	13.5	71	usa
41	14.0	8	318.0	150.0	4096	13.0	71	usa
42	12.0	8	383.0	180.0	4955	11.5	71	usa
43	13.0	8	400.0	170.0	4746	12.0	71	usa
44	13.0	8	400.0	175.0	5140	12.0	71	usa
45	18.0	6	258.0	110.0	2962	13.5	71	usa
46	22.0	4	140.0	72.0	2408	19.0	71	usa
47	19.0	6	250.0	100.0	3282	15.0	71	usa
48	18.0	6	250.0	88.0	3139	14.5	71	usa
49	23.0	4	122.0	86.0	2220	14.0	71	usa
50	28.0	4	116.0	90.0	2123	14.0	71	europe

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
51	30.0	4	79.0	70.0	2074	19.5	71	europe	p
52	30.0	4	88.0	76.0	2065	14.5	71	europe	
53	31.0	4	71.0	65.0	1773	19.0	71	japan	c
54	35.0	4	72.0	69.0	1613	18.0	71	japan	d
55	27.0	4	97.0	60.0	1834	19.0	71	europe	v
56	26.0	4	91.0	70.0	1955	20.5	71	usa	
57	24.0	4	113.0	95.0	2278	15.5	72	japan	
58	25.0	4	97.5	80.0	2126	17.0	72	usa	
59	23.0	4	97.0	54.0	2254	23.5	72	europe	v
60	20.0	4	140.0	90.0	2408	19.5	72	usa	
61	21.0	4	122.0	86.0	2226	16.5	72	usa	
62	13.0	8	350.0	165.0	4274	12.0	72	usa	
63	14.0	8	400.0	175.0	4385	12.0	72	usa	
64	15.0	8	318.0	150.0	4135	13.5	72	usa	
65	14.0	8	351.0	153.0	4129	13.0	72	usa	
66	17.0	8	304.0	150.0	3672	11.5	72	usa	a
67	11.0	8	429.0	208.0	4633	11.0	72	usa	
68	13.0	8	350.0	155.0	4502	13.5	72	usa	
69	12.0	8	350.0	160.0	4456	13.5	72	usa	
70	13.0	8	400.0	190.0	4422	12.5	72	usa	
71	19.0	3	70.0	97.0	2330	13.5	72	japan	
72	15.0	8	304.0	150.0	3892	12.5	72	usa	
73	13.0	8	307.0	130.0	4098	14.0	72	usa	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
74	13.0	8	302.0	140.0	4294	16.0	72	usa
75	14.0	8	318.0	150.0	4077	14.0	72	usa
76	18.0	4	121.0	112.0	2933	14.5	72	europe
77	22.0	4	121.0	76.0	2511	18.0	72	europe
78	21.0	4	120.0	87.0	2979	19.5	72	europe
79	26.0	4	96.0	69.0	2189	18.0	72	europe
80	22.0	4	122.0	86.0	2395	16.0	72	usa
81	28.0	4	97.0	92.0	2288	17.0	72	japan
82	23.0	4	120.0	97.0	2506	14.5	72	japan
83	28.0	4	98.0	80.0	2164	15.0	72	usa
84	27.0	4	97.0	88.0	2100	16.5	72	japan
85	13.0	8	350.0	175.0	4100	13.0	73	usa
86	14.0	8	304.0	150.0	3672	11.5	73	usa
87	13.0	8	350.0	145.0	3988	13.0	73	usa
88	14.0	8	302.0	137.0	4042	14.5	73	usa
89	15.0	8	318.0	150.0	3777	12.5	73	usa
90	12.0	8	429.0	198.0	4952	11.5	73	usa
91	13.0	8	400.0	150.0	4464	12.0	73	usa
92	13.0	8	351.0	158.0	4363	13.0	73	usa
93	14.0	8	318.0	150.0	4237	14.5	73	usa
94	13.0	8	440.0	215.0	4735	11.0	73	usa
95	12.0	8	455.0	225.0	4951	11.0	73	usa

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
96	13.0	8	360.0	175.0	3821	11.0	73	usa	a
97	18.0	6	225.0	105.0	3121	16.5	73	usa	
98	16.0	6	250.0	100.0	3278	18.0	73	usa	
99	18.0	6	232.0	100.0	2945	16.0	73	usa	
100	18.0	6	250.0	88.0	3021	16.5	73	usa	
101	23.0	6	198.0	95.0	2904	16.0	73	usa	
102	26.0	4	97.0	46.0	1950	21.0	73	europe	v s
103	11.0	8	400.0	150.0	4997	14.0	73	usa	
104	12.0	8	400.0	167.0	4906	12.5	73	usa	f
105	13.0	8	360.0	170.0	4654	13.0	73	usa	
106	12.0	8	350.0	180.0	4499	12.5	73	usa	v
107	18.0	6	232.0	100.0	2789	15.0	73	usa	a
108	20.0	4	97.0	88.0	2279	19.0	73	japan	
109	21.0	4	140.0	72.0	2401	19.5	73	usa	
110	22.0	4	108.0	94.0	2379	16.5	73	japan	
111	18.0	3	70.0	90.0	2124	13.5	73	japan	
112	19.0	4	122.0	85.0	2310	18.5	73	usa	
113	21.0	6	155.0	107.0	2472	14.0	73	usa	
114	26.0	4	98.0	90.0	2265	15.5	73	europe	s
115	15.0	8	350.0	145.0	4082	13.0	73	usa	r
116	16.0	8	400.0	230.0	4278	9.5	73	usa	
117	29.0	4	68.0	49.0	1867	19.5	73	europe	
118	24.0	4	116.0	75.0	2158	15.5	73	europe	
119	20.0	4	114.0	91.0	2582	14.0	73	europe	
120	19.0	4	121.0	112.0	2868	15.5	73	europe	v
121	15.0	8	318.0	150.0	3399	11.0	73	usa	
122	24.0	4	121.0	110.0	2660	14.0	73	europe	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
123	20.0	6	156.0	122.0	2807	13.5	73	japan
124	11.0	8	350.0	180.0	3664	11.0	73	usa
125	20.0	6	198.0	95.0	3102	16.5	74	usa
126	21.0	6	200.0	NaN	2875	17.0	74	usa
127	19.0	6	232.0	100.0	2901	16.0	74	usa
128	15.0	6	250.0	100.0	3336	17.0	74	usa
129	31.0	4	79.0	67.0	1950	19.0	74	japan
130	26.0	4	122.0	80.0	2451	16.5	74	usa
131	32.0	4	71.0	65.0	1836	21.0	74	japan
132	25.0	4	140.0	75.0	2542	17.0	74	usa
133	16.0	6	250.0	100.0	3781	17.0	74	usa
134	16.0	6	258.0	110.0	3632	18.0	74	usa
135	18.0	6	225.0	105.0	3613	16.5	74	usa
136	16.0	8	302.0	140.0	4141	14.0	74	usa
137	13.0	8	350.0	150.0	4699	14.5	74	usa
138	14.0	8	318.0	150.0	4457	13.5	74	usa
139	14.0	8	302.0	140.0	4638	16.0	74	usa
140	14.0	8	304.0	150.0	4257	15.5	74	usa
141	29.0	4	98.0	83.0	2219	16.5	74	europe
142	26.0	4	79.0	67.0	1963	15.5	74	europe
143	26.0	4	97.0	78.0	2300	14.5	74	europe
144	31.0	4	76.0	52.0	1649	16.5	74	japan
145	32.0	4	83.0	61.0	2003	19.0	74	japan
146	28.0	4	90.0	75.0	2125	14.5	74	usa
147	24.0	4	90.0	75.0	2108	15.5	74	europe
148	26.0	4	116.0	75.0	2246	14.0	74	europe

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
149	24.0	4	120.0	97.0	2489	15.0	74	japan
150	26.0	4	108.0	93.0	2391	15.5	74	japan
151	31.0	4	79.0	67.0	2000	16.0	74	europe
152	19.0	6	225.0	95.0	3264	16.0	75	usa
153	18.0	6	250.0	105.0	3459	16.0	75	usa
154	15.0	6	250.0	72.0	3432	21.0	75	usa
155	15.0	6	250.0	72.0	3158	19.5	75	usa
156	16.0	8	400.0	170.0	4668	11.5	75	usa
157	15.0	8	350.0	145.0	4440	14.0	75	usa
158	16.0	8	318.0	150.0	4498	14.5	75	usa
159	14.0	8	351.0	148.0	4657	13.5	75	usa
160	17.0	6	231.0	110.0	3907	21.0	75	usa
161	16.0	6	250.0	105.0	3897	18.5	75	usa
162	15.0	6	258.0	110.0	3730	19.0	75	usa
163	18.0	6	225.0	95.0	3785	19.0	75	usa
164	21.0	6	231.0	110.0	3039	15.0	75	usa
165	20.0	8	262.0	110.0	3221	13.5	75	usa
166	13.0	8	302.0	129.0	3169	12.0	75	usa
167	29.0	4	97.0	75.0	2171	16.0	75	japan
168	23.0	4	140.0	83.0	2639	17.0	75	usa
169	20.0	6	232.0	100.0	2914	16.0	75	usa a
170	23.0	4	140.0	78.0	2592	18.5	75	usa
171	24.0	4	134.0	96.0	2702	13.5	75	japan
172	25.0	4	90.0	71.0	2223	16.5	75	europe '
173	24.0	4	119.0	97.0	2545	17.0	75	japan
174	18.0	6	171.0	97.0	2984	14.5	75	usa
175	29.0	4	90.0	70.0	1937	14.0	75	europe '

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
176	19.0	6	232.0	90.0	3211	17.0	75	usa	
177	23.0	4	115.0	95.0	2694	15.0	75	europe	
178	23.0	4	120.0	88.0	2957	17.0	75	europe	p
179	22.0	4	121.0	98.0	2945	14.5	75	europe	
180	25.0	4	121.0	115.0	2671	13.5	75	europe	
181	33.0	4	91.0	53.0	1795	17.5	75	japan	
182	28.0	4	107.0	86.0	2464	15.5	76	europe	
183	25.0	4	116.0	81.0	2220	16.9	76	europe	
184	25.0	4	140.0	92.0	2572	14.9	76	usa	
185	26.0	4	98.0	79.0	2255	17.7	76	usa	
186	27.0	4	101.0	83.0	2202	15.3	76	europe	
187	17.5	8	305.0	140.0	4215	13.0	76	usa	
188	16.0	8	318.0	150.0	4190	13.0	76	usa	
189	15.5	8	304.0	120.0	3962	13.9	76	usa	
190	14.5	8	351.0	152.0	4215	12.8	76	usa	
191	22.0	6	225.0	100.0	3233	15.4	76	usa	
192	22.0	6	250.0	105.0	3353	14.5	76	usa	
193	24.0	6	200.0	81.0	3012	17.6	76	usa	
194	22.5	6	232.0	90.0	3085	17.6	76	usa	
195	29.0	4	85.0	52.0	2035	22.2	76	usa	
196	24.5	4	98.0	60.0	2164	22.1	76	usa	
197	29.0	4	90.0	70.0	1937	14.2	76	europe	
198	33.0	4	91.0	53.0	1795	17.4	76	japan	
199	20.0	6	225.0	100.0	3651	17.7	76	usa	
200	18.0	6	250.0	78.0	3574	21.0	76	usa	
201	18.5	6	250.0	110.0	3645	16.2	76	usa	
202	17.5	6	258.0	95.0	3193	17.8	76	usa	
203	29.5	4	97.0	71.0	1825	12.2	76	europe	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
204	32.0	4	85.0	70.0	1990	17.0	76	japan	
205	28.0	4	97.0	75.0	2155	16.4	76	japan	
206	26.5	4	140.0	72.0	2565	13.6	76	usa	
207	20.0	4	130.0	102.0	3150	15.7	76	europe	
208	13.0	8	318.0	150.0	3940	13.2	76	usa	
209	19.0	4	120.0	88.0	3270	21.9	76	europe	p
210	19.0	6	156.0	108.0	2930	15.5	76	japan	
211	16.5	6	168.0	120.0	3820	16.7	76	europe	
212	16.5	8	350.0	180.0	4380	12.1	76	usa	
213	13.0	8	350.0	145.0	4055	12.0	76	usa	
214	13.0	8	302.0	130.0	3870	15.0	76	usa	
215	13.0	8	318.0	150.0	3755	14.0	76	usa	
216	31.5	4	98.0	68.0	2045	18.5	77	japan	
217	30.0	4	111.0	80.0	2155	14.8	77	usa	is
218	36.0	4	79.0	58.0	1825	18.6	77	europe	
219	25.5	4	122.0	96.0	2300	15.5	77	usa	
220	33.5	4	85.0	70.0	1945	16.8	77	japan	
221	17.5	8	305.0	145.0	3880	12.5	77	usa	
222	17.0	8	260.0	110.0	4060	19.0	77	usa	
223	15.5	8	318.0	145.0	4140	13.7	77	usa	
224	15.0	8	302.0	130.0	4295	14.9	77	usa	
225	17.5	6	250.0	110.0	3520	16.4	77	usa	
226	20.5	6	231.0	105.0	3425	16.9	77	usa	
227	19.0	6	225.0	100.0	3630	17.7	77	usa	
228	18.5	6	250.0	98.0	3525	19.0	77	usa	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
229	16.0	8	400.0	180.0	4220	11.1	77	usa
230	15.5	8	350.0	170.0	4165	11.4	77	usa
231	15.5	8	400.0	190.0	4325	12.2	77	usa
232	16.0	8	351.0	149.0	4335	14.5	77	usa
233	29.0	4	97.0	78.0	1940	14.5	77	europe
234	24.5	4	151.0	88.0	2740	16.0	77	usa
235	26.0	4	97.0	75.0	2265	18.2	77	japan
236	25.5	4	140.0	89.0	2755	15.8	77	usa
237	30.5	4	98.0	63.0	2051	17.0	77	usa
238	33.5	4	98.0	83.0	2075	15.9	77	usa
239	30.0	4	97.0	67.0	1985	16.4	77	japan
240	30.5	4	97.0	78.0	2190	14.1	77	europe
241	22.0	6	146.0	97.0	2815	14.5	77	japan
242	21.5	4	121.0	110.0	2600	12.8	77	europe
243	21.5	3	80.0	110.0	2720	13.5	77	japan
244	43.1	4	90.0	48.0	1985	21.5	78	europe
245	36.1	4	98.0	66.0	1800	14.4	78	usa
246	32.8	4	78.0	52.0	1985	19.4	78	japan
247	39.4	4	85.0	70.0	2070	18.6	78	japan
248	36.1	4	91.0	60.0	1800	16.4	78	japan
249	19.9	8	260.0	110.0	3365	15.5	78	usa
250	19.4	8	318.0	140.0	3735	13.2	78	usa
251	20.2	8	302.0	139.0	3570	12.8	78	usa

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
252	19.2	6	231.0	105.0	3535	19.2	78	usa
253	20.5	6	200.0	95.0	3155	18.2	78	usa
254	20.2	6	200.0	85.0	2965	15.8	78	usa
255	25.1	4	140.0	88.0	2720	15.4	78	usa
256	20.5	6	225.0	100.0	3430	17.2	78	usa
257	19.4	6	232.0	90.0	3210	17.2	78	usa
258	20.6	6	231.0	105.0	3380	15.8	78	usa
259	20.8	6	200.0	85.0	3070	16.7	78	usa
260	18.6	6	225.0	110.0	3620	18.7	78	usa
261	18.1	6	258.0	120.0	3410	15.1	78	usa
262	19.2	8	305.0	145.0	3425	13.2	78	usa
263	17.7	6	231.0	165.0	3445	13.4	78	usa
264	18.1	8	302.0	139.0	3205	11.2	78	usa
265	17.5	8	318.0	140.0	4080	13.7	78	usa
266	30.0	4	98.0	68.0	2155	16.5	78	usa
267	27.5	4	134.0	95.0	2560	14.2	78	japan
268	27.2	4	119.0	97.0	2300	14.7	78	japan
269	30.9	4	105.0	75.0	2230	14.5	78	usa
270	21.1	4	134.0	95.0	2515	14.8	78	japan
271	23.2	4	156.0	105.0	2745	16.7	78	usa
272	23.8	4	151.0	85.0	2855	17.6	78	usa
273	23.9	4	119.0	97.0	2405	14.9	78	japan
274	20.3	5	131.0	103.0	2830	15.9	78	europe
275	17.0	6	163.0	125.0	3140	13.6	78	europe
276	21.6	4	121.0	115.0	2795	15.7	78	europe

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
277	16.2	6	163.0	133.0	3410	15.8	78	europe	
278	31.5	4	89.0	71.0	1990	14.9	78	europe	v
279	29.5	4	98.0	68.0	2135	16.6	78	japan	
280	21.5	6	231.0	115.0	3245	15.4	79	usa	
281	19.8	6	200.0	85.0	2990	18.2	79	usa	
282	22.3	4	140.0	88.0	2890	17.3	79	usa	
283	20.2	6	232.0	90.0	3265	18.2	79	usa	c
284	20.6	6	225.0	110.0	3360	16.6	79	usa	
285	17.0	8	305.0	130.0	3840	15.4	79	usa	
286	17.6	8	302.0	129.0	3725	13.4	79	usa	
287	16.5	8	351.0	138.0	3955	13.2	79	usa	
288	18.2	8	318.0	135.0	3830	15.2	79	usa	
289	16.9	8	350.0	155.0	4360	14.9	79	usa	b
290	15.5	8	351.0	142.0	4054	14.3	79	usa	f
291	19.2	8	267.0	125.0	3605	15.0	79	usa	
292	18.5	8	360.0	150.0	3940	13.0	79	usa	c
293	31.9	4	89.0	71.0	1925	14.0	79	europe	
294	34.1	4	86.0	65.0	1975	15.2	79	japan	
295	35.7	4	98.0	80.0	1915	14.4	79	usa	
296	27.4	4	121.0	80.0	2670	15.0	79	usa	a
297	25.4	5	183.0	77.0	3530	20.1	79	europe	
298	23.0	8	350.0	125.0	3900	17.4	79	usa	
299	27.2	4	141.0	71.0	3190	24.8	79	europe	p

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
300	23.9	8	260.0	90.0	3420	22.2	79	usa
301	34.2	4	105.0	70.0	2200	13.2	79	usa
302	34.5	4	105.0	70.0	2150	14.9	79	usa
303	31.8	4	85.0	65.0	2020	19.2	79	japan
304	37.3	4	91.0	69.0	2130	14.7	79	europe
305	28.4	4	151.0	90.0	2670	16.0	79	usa
306	28.8	6	173.0	115.0	2595	11.3	79	usa
307	26.8	6	173.0	115.0	2700	12.9	79	usa
308	33.5	4	151.0	90.0	2556	13.2	79	usa
309	41.5	4	98.0	76.0	2144	14.7	80	europe
310	38.1	4	89.0	60.0	1968	18.8	80	japan
311	32.1	4	98.0	70.0	2120	15.5	80	usa
312	37.2	4	86.0	65.0	2019	16.4	80	japan
313	28.0	4	151.0	90.0	2678	16.5	80	usa
314	26.4	4	140.0	88.0	2870	18.1	80	usa
315	24.3	4	151.0	90.0	3003	20.1	80	usa
316	19.1	6	225.0	90.0	3381	18.7	80	usa
317	34.3	4	97.0	78.0	2188	15.8	80	europe
318	29.8	4	134.0	90.0	2711	15.5	80	japan
319	31.3	4	120.0	75.0	2542	17.5	80	japan
320	37.0	4	119.0	92.0	2434	15.0	80	japan
321	32.2	4	108.0	75.0	2265	15.2	80	japan
322	46.6	4	86.0	65.0	2110	17.9	80	japan
323	27.9	4	156.0	105.0	2800	14.4	80	usa
324	40.8	4	85.0	65.0	2110	19.2	80	japan
325	44.3	4	90.0	48.0	2085	21.7	80	europe

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
326	43.4	4	90.0	48.0	2335	23.7	80	europe
327	36.4	5	121.0	67.0	2950	19.9	80	europe
328	30.0	4	146.0	67.0	3250	21.8	80	europe
329	44.6	4	91.0	67.0	1850	13.8	80	japan
330	40.9	4	85.0	NaN	1835	17.3	80	europe
331	33.8	4	97.0	67.0	2145	18.0	80	japan
332	29.8	4	89.0	62.0	1845	15.3	80	europe
333	32.7	6	168.0	132.0	2910	11.4	80	japan
334	23.7	3	70.0	100.0	2420	12.5	80	japan
335	35.0	4	122.0	88.0	2500	15.1	80	europe
336	23.6	4	140.0	NaN	2905	14.3	80	usa
337	32.4	4	107.0	72.0	2290	17.0	80	japan
338	27.2	4	135.0	84.0	2490	15.7	81	usa
339	26.6	4	151.0	84.0	2635	16.4	81	usa
340	25.8	4	156.0	92.0	2620	14.4	81	usa
341	23.5	6	173.0	110.0	2725	12.6	81	usa
342	30.0	4	135.0	84.0	2385	12.9	81	usa
343	39.1	4	79.0	58.0	1755	16.9	81	japan
344	39.0	4	86.0	64.0	1875	16.4	81	usa
345	35.1	4	81.0	60.0	1760	16.1	81	japan
346	32.3	4	97.0	67.0	2065	17.8	81	japan
347	37.0	4	85.0	65.0	1975	19.4	81	japan
348	37.7	4	89.0	62.0	2050	17.3	81	japan
349	34.1	4	91.0	68.0	1985	16.0	81	japan
350	34.7	4	105.0	63.0	2215	14.9	81	usa
351	34.4	4	98.0	65.0	2045	16.2	81	usa

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
352	29.9	4	98.0	65.0	2380	20.7	81	usa
353	33.0	4	105.0	74.0	2190	14.2	81	europe
354	34.5	4	100.0	NaN	2320	15.8	81	europe
355	33.7	4	107.0	75.0	2210	14.4	81	japan
356	32.4	4	108.0	75.0	2350	16.8	81	japan
357	32.9	4	119.0	100.0	2615	14.8	81	japan
358	31.6	4	120.0	74.0	2635	18.3	81	japan
359	28.1	4	141.0	80.0	3230	20.4	81	europe
360	30.7	6	145.0	76.0	3160	19.6	81	europe
361	25.4	6	168.0	116.0	2900	12.6	81	japan
362	24.2	6	146.0	120.0	2930	13.8	81	japan
363	22.4	6	231.0	110.0	3415	15.8	81	usa
364	26.6	8	350.0	105.0	3725	19.0	81	usa
365	20.2	6	200.0	88.0	3060	17.1	81	usa
366	17.6	6	225.0	85.0	3465	16.6	81	usa
367	28.0	4	112.0	88.0	2605	19.6	82	usa
368	27.0	4	112.0	88.0	2640	18.6	82	usa
369	34.0	4	112.0	88.0	2395	18.0	82	usa
370	31.0	4	112.0	85.0	2575	16.2	82	usa
371	29.0	4	135.0	84.0	2525	16.0	82	usa
372	27.0	4	151.0	90.0	2735	18.0	82	usa
373	24.0	4	140.0	92.0	2865	16.4	82	usa
374	23.0	4	151.0	NaN	3035	20.5	82	usa
375	36.0	4	105.0	74.0	1980	15.3	82	europe

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
376	37.0	4	91.0	68.0	2025	18.2	82	japan	
377	31.0	4	91.0	68.0	1970	17.6	82	japan	
378	38.0	4	105.0	63.0	2125	14.7	82	usa	
379	36.0	4	98.0	70.0	2125	17.3	82	usa	
380	36.0	4	120.0	88.0	2160	14.5	82	japan	
381	36.0	4	107.0	75.0	2205	14.5	82	japan	
382	34.0	4	108.0	70.0	2245	16.9	82	japan	
383	38.0	4	91.0	67.0	1965	15.0	82	japan	
384	32.0	4	91.0	67.0	1965	15.7	82	japan	
385	38.0	4	91.0	67.0	1995	16.2	82	japan	
386	25.0	6	181.0	110.0	2945	16.4	82	usa	
387	38.0	6	262.0	85.0	3015	17.0	82	usa	c
388	26.0	4	156.0	92.0	2585	14.5	82	usa	
389	22.0	6	232.0	112.0	2835	14.7	82	usa	
390	32.0	4	144.0	96.0	2665	13.9	82	japan	t
391	36.0	4	135.0	84.0	2370	13.0	82	usa	
392	27.0	4	151.0	90.0	2950	17.3	82	usa	
393	27.0	4	140.0	86.0	2790	15.6	82	usa	
394	44.0	4	97.0	52.0	2130	24.6	82	europe	
395	32.0	4	135.0	84.0	2295	11.6	82	usa	
396	28.0	4	120.0	79.0	2625	18.6	82	usa	
397	31.0	4	119.0	82.0	2720	19.4	82	usa	

In [ ]:

```
car.isna().sum()
```

Out[ ]:

```
mpg             0
cylinders       0
displacement    0
horsepower      6
weight          0
acceleration    0
model_year      0
origin          0
name            0
dtype: int64
```

In [ ]:

```
car = car.dropna()
```

In [ ]:

```
car.isna().sum()
```

Out[ ]:

```
mpg             0
cylinders       0
displacement    0
horsepower      0
weight          0
acceleration    0
model_year      0
origin          0
name            0
dtype: int64
```

In [ ]:

```
car.describe()
```

Out[ ]:

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_
count	392.000000	392.000000	392.000000	392.000000	392.000000	392.000000	392.00
mean	23.445918	5.471939	194.411990	104.469388	2977.584184	15.541327	75.97
std	7.805007	1.705783	104.644004	38.491160	849.402560	2.758864	3.68
min	9.000000	3.000000	68.000000	46.000000	1613.000000	8.000000	70.00
25%	17.000000	4.000000	105.000000	75.000000	2225.250000	13.775000	73.00
50%	22.750000	4.000000	151.000000	93.500000	2803.500000	15.500000	76.00
75%	29.000000	8.000000	275.750000	126.000000	3614.750000	17.025000	79.00
max	46.600000	8.000000	455.000000	230.000000	5140.000000	24.800000	82.00

In [ ]:

```
car.info()
```

```
<class 'pandas.core.frame.DataFrame'>
Int64Index: 392 entries, 0 to 397
Data columns (total 9 columns):
 #   Column        Non-Null Count  Dtype  
---  ------        --------------  -----  
 0   mpg           392 non-null    float64
 1   cylinders     392 non-null    int64  
 2   displacement  392 non-null    float64
 3   horsepower    392 non-null    float64
 4   weight        392 non-null    int64  
 5   acceleration  392 non-null    float64
 6   model_year    392 non-null    int64  
 7   origin        392 non-null    object 
 8   name          392 non-null    object 
dtypes: float64(4), int64(3), object(2)
memory usage: 30.6+ KB
```

In [ ]:

```
car.shape
```

Out[ ]:

```
(392, 9)
```

Excercise 2

In [ ]:

```
mpg = pd.read_csv('https://github.com/YBI-Foundation/Dataset/raw/main/MPG.csv')
```

In [ ]:

```
mpg
```

Out[ ]:

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
0	18.0	8	307.0	130.0	3504	12.0	70	usa	
1	15.0	8	350.0	165.0	3693	11.5	70	usa	
2	18.0	8	318.0	150.0	3436	11.0	70	usa	
3	16.0	8	304.0	150.0	3433	12.0	70	usa	
4	17.0	8	302.0	140.0	3449	10.5	70	usa	
5	15.0	8	429.0	198.0	4341	10.0	70	usa	
6	14.0	8	454.0	220.0	4354	9.0	70	usa	
7	14.0	8	440.0	215.0	4312	8.5	70	usa	
8	14.0	8	455.0	225.0	4425	10.0	70	usa	
9	15.0	8	390.0	190.0	3850	8.5	70	usa	a
10	15.0	8	383.0	170.0	3563	10.0	70	usa	
11	14.0	8	340.0	160.0	3609	8.0	70	usa	
12	15.0	8	400.0	150.0	3761	9.5	70	usa	
13	14.0	8	455.0	225.0	3086	10.0	70	usa	
14	24.0	4	113.0	95.0	2372	15.0	70	japan	c
15	22.0	6	198.0	95.0	2833	15.5	70	usa	
16	18.0	6	199.0	97.0	2774	15.5	70	usa	
17	21.0	6	200.0	85.0	2587	16.0	70	usa	
18	27.0	4	97.0	88.0	2130	14.5	70	japan	
19	26.0	4	97.0	46.0	1835	20.5	70	europe	
20	25.0	4	110.0	87.0	2672	17.5	70	europe	p
21	24.0	4	107.0	90.0	2430	14.5	70	europe	
22	25.0	4	104.0	95.0	2375	17.5	70	europe	
23	26.0	4	121.0	113.0	2234	12.5	70	europe	
24	21.0	6	199.0	90.0	2648	15.0	70	usa	a

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
25	10.0	8	360.0	215.0	4615	14.0	70	usa
26	10.0	8	307.0	200.0	4376	15.0	70	usa
27	11.0	8	318.0	210.0	4382	13.5	70	usa
28	9.0	8	304.0	193.0	4732	18.5	70	usa
29	27.0	4	97.0	88.0	2130	14.5	71	japan
30	28.0	4	140.0	90.0	2264	15.5	71	usa
31	25.0	4	113.0	95.0	2228	14.0	71	japan
32	25.0	4	98.0	NaN	2046	19.0	71	usa
33	19.0	6	232.0	100.0	2634	13.0	71	usa
34	16.0	6	225.0	105.0	3439	15.5	71	usa
35	17.0	6	250.0	100.0	3329	15.5	71	usa
36	19.0	6	250.0	88.0	3302	15.5	71	usa
37	18.0	6	232.0	100.0	3288	15.5	71	usa
38	14.0	8	350.0	165.0	4209	12.0	71	usa
39	14.0	8	400.0	175.0	4464	11.5	71	usa
40	14.0	8	351.0	153.0	4154	13.5	71	usa
41	14.0	8	318.0	150.0	4096	13.0	71	usa
42	12.0	8	383.0	180.0	4955	11.5	71	usa
43	13.0	8	400.0	170.0	4746	12.0	71	usa
44	13.0	8	400.0	175.0	5140	12.0	71	usa
45	18.0	6	258.0	110.0	2962	13.5	71	usa
46	22.0	4	140.0	72.0	2408	19.0	71	usa
47	19.0	6	250.0	100.0	3282	15.0	71	usa
48	18.0	6	250.0	88.0	3139	14.5	71	usa
49	23.0	4	122.0	86.0	2220	14.0	71	usa
50	28.0	4	116.0	90.0	2123	14.0	71	europe

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
51	30.0	4	79.0	70.0	2074	19.5	71	europe	p
52	30.0	4	88.0	76.0	2065	14.5	71	europe	
53	31.0	4	71.0	65.0	1773	19.0	71	japan	c
54	35.0	4	72.0	69.0	1613	18.0	71	japan	d
55	27.0	4	97.0	60.0	1834	19.0	71	europe	'
56	26.0	4	91.0	70.0	1955	20.5	71	usa	
57	24.0	4	113.0	95.0	2278	15.5	72	japan	
58	25.0	4	97.5	80.0	2126	17.0	72	usa	
59	23.0	4	97.0	54.0	2254	23.5	72	europe	'
60	20.0	4	140.0	90.0	2408	19.5	72	usa	
61	21.0	4	122.0	86.0	2226	16.5	72	usa	
62	13.0	8	350.0	165.0	4274	12.0	72	usa	
63	14.0	8	400.0	175.0	4385	12.0	72	usa	
64	15.0	8	318.0	150.0	4135	13.5	72	usa	
65	14.0	8	351.0	153.0	4129	13.0	72	usa	
66	17.0	8	304.0	150.0	3672	11.5	72	usa	a
67	11.0	8	429.0	208.0	4633	11.0	72	usa	
68	13.0	8	350.0	155.0	4502	13.5	72	usa	
69	12.0	8	350.0	160.0	4456	13.5	72	usa	
70	13.0	8	400.0	190.0	4422	12.5	72	usa	
71	19.0	3	70.0	97.0	2330	13.5	72	japan	
72	15.0	8	304.0	150.0	3892	12.5	72	usa	
73	13.0	8	307.0	130.0	4098	14.0	72	usa	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
74	13.0	8	302.0	140.0	4294	16.0	72	usa
75	14.0	8	318.0	150.0	4077	14.0	72	usa
76	18.0	4	121.0	112.0	2933	14.5	72	europe
77	22.0	4	121.0	76.0	2511	18.0	72	europe
78	21.0	4	120.0	87.0	2979	19.5	72	europe
79	26.0	4	96.0	69.0	2189	18.0	72	europe
80	22.0	4	122.0	86.0	2395	16.0	72	usa
81	28.0	4	97.0	92.0	2288	17.0	72	japan
82	23.0	4	120.0	97.0	2506	14.5	72	japan
83	28.0	4	98.0	80.0	2164	15.0	72	usa
84	27.0	4	97.0	88.0	2100	16.5	72	japan
85	13.0	8	350.0	175.0	4100	13.0	73	usa
86	14.0	8	304.0	150.0	3672	11.5	73	usa
87	13.0	8	350.0	145.0	3988	13.0	73	usa
88	14.0	8	302.0	137.0	4042	14.5	73	usa
89	15.0	8	318.0	150.0	3777	12.5	73	usa
90	12.0	8	429.0	198.0	4952	11.5	73	usa
91	13.0	8	400.0	150.0	4464	12.0	73	usa
92	13.0	8	351.0	158.0	4363	13.0	73	usa
93	14.0	8	318.0	150.0	4237	14.5	73	usa
94	13.0	8	440.0	215.0	4735	11.0	73	usa
95	12.0	8	455.0	225.0	4951	11.0	73	usa

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
96	13.0	8	360.0	175.0	3821	11.0	73	usa	a
97	18.0	6	225.0	105.0	3121	16.5	73	usa	
98	16.0	6	250.0	100.0	3278	18.0	73	usa	
99	18.0	6	232.0	100.0	2945	16.0	73	usa	
100	18.0	6	250.0	88.0	3021	16.5	73	usa	
101	23.0	6	198.0	95.0	2904	16.0	73	usa	
102	26.0	4	97.0	46.0	1950	21.0	73	europe	v s
103	11.0	8	400.0	150.0	4997	14.0	73	usa	
104	12.0	8	400.0	167.0	4906	12.5	73	usa	f
105	13.0	8	360.0	170.0	4654	13.0	73	usa	
106	12.0	8	350.0	180.0	4499	12.5	73	usa	v
107	18.0	6	232.0	100.0	2789	15.0	73	usa	a
108	20.0	4	97.0	88.0	2279	19.0	73	japan	
109	21.0	4	140.0	72.0	2401	19.5	73	usa	
110	22.0	4	108.0	94.0	2379	16.5	73	japan	
111	18.0	3	70.0	90.0	2124	13.5	73	japan	
112	19.0	4	122.0	85.0	2310	18.5	73	usa	
113	21.0	6	155.0	107.0	2472	14.0	73	usa	
114	26.0	4	98.0	90.0	2265	15.5	73	europe	s
115	15.0	8	350.0	145.0	4082	13.0	73	usa	r
116	16.0	8	400.0	230.0	4278	9.5	73	usa	
117	29.0	4	68.0	49.0	1867	19.5	73	europe	
118	24.0	4	116.0	75.0	2158	15.5	73	europe	
119	20.0	4	114.0	91.0	2582	14.0	73	europe	
120	19.0	4	121.0	112.0	2868	15.5	73	europe	v
121	15.0	8	318.0	150.0	3399	11.0	73	usa	
122	24.0	4	121.0	110.0	2660	14.0	73	europe	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
123	20.0	6	156.0	122.0	2807	13.5	73	japan
124	11.0	8	350.0	180.0	3664	11.0	73	usa
125	20.0	6	198.0	95.0	3102	16.5	74	usa
126	21.0	6	200.0	NaN	2875	17.0	74	usa
127	19.0	6	232.0	100.0	2901	16.0	74	usa
128	15.0	6	250.0	100.0	3336	17.0	74	usa
129	31.0	4	79.0	67.0	1950	19.0	74	japan
130	26.0	4	122.0	80.0	2451	16.5	74	usa
131	32.0	4	71.0	65.0	1836	21.0	74	japan
132	25.0	4	140.0	75.0	2542	17.0	74	usa
133	16.0	6	250.0	100.0	3781	17.0	74	usa
134	16.0	6	258.0	110.0	3632	18.0	74	usa
135	18.0	6	225.0	105.0	3613	16.5	74	usa
136	16.0	8	302.0	140.0	4141	14.0	74	usa
137	13.0	8	350.0	150.0	4699	14.5	74	usa
138	14.0	8	318.0	150.0	4457	13.5	74	usa
139	14.0	8	302.0	140.0	4638	16.0	74	usa
140	14.0	8	304.0	150.0	4257	15.5	74	usa
141	29.0	4	98.0	83.0	2219	16.5	74	europe
142	26.0	4	79.0	67.0	1963	15.5	74	europe
143	26.0	4	97.0	78.0	2300	14.5	74	europe
144	31.0	4	76.0	52.0	1649	16.5	74	japan
145	32.0	4	83.0	61.0	2003	19.0	74	japan
146	28.0	4	90.0	75.0	2125	14.5	74	usa
147	24.0	4	90.0	75.0	2108	15.5	74	europe
148	26.0	4	116.0	75.0	2246	14.0	74	europe

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
149	24.0	4	120.0	97.0	2489	15.0	74	japan
150	26.0	4	108.0	93.0	2391	15.5	74	japan
151	31.0	4	79.0	67.0	2000	16.0	74	europe
152	19.0	6	225.0	95.0	3264	16.0	75	usa
153	18.0	6	250.0	105.0	3459	16.0	75	usa
154	15.0	6	250.0	72.0	3432	21.0	75	usa
155	15.0	6	250.0	72.0	3158	19.5	75	usa
156	16.0	8	400.0	170.0	4668	11.5	75	usa
157	15.0	8	350.0	145.0	4440	14.0	75	usa
158	16.0	8	318.0	150.0	4498	14.5	75	usa
159	14.0	8	351.0	148.0	4657	13.5	75	usa
160	17.0	6	231.0	110.0	3907	21.0	75	usa
161	16.0	6	250.0	105.0	3897	18.5	75	usa
162	15.0	6	258.0	110.0	3730	19.0	75	usa
163	18.0	6	225.0	95.0	3785	19.0	75	usa
164	21.0	6	231.0	110.0	3039	15.0	75	usa
165	20.0	8	262.0	110.0	3221	13.5	75	usa
166	13.0	8	302.0	129.0	3169	12.0	75	usa
167	29.0	4	97.0	75.0	2171	16.0	75	japan
168	23.0	4	140.0	83.0	2639	17.0	75	usa
169	20.0	6	232.0	100.0	2914	16.0	75	usa a
170	23.0	4	140.0	78.0	2592	18.5	75	usa
171	24.0	4	134.0	96.0	2702	13.5	75	japan
172	25.0	4	90.0	71.0	2223	16.5	75	europe '
173	24.0	4	119.0	97.0	2545	17.0	75	japan
174	18.0	6	171.0	97.0	2984	14.5	75	usa
175	29.0	4	90.0	70.0	1937	14.0	75	europe '

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
176	19.0	6	232.0	90.0	3211	17.0	75	usa	
177	23.0	4	115.0	95.0	2694	15.0	75	europe	
178	23.0	4	120.0	88.0	2957	17.0	75	europe	p
179	22.0	4	121.0	98.0	2945	14.5	75	europe	
180	25.0	4	121.0	115.0	2671	13.5	75	europe	
181	33.0	4	91.0	53.0	1795	17.5	75	japan	
182	28.0	4	107.0	86.0	2464	15.5	76	europe	
183	25.0	4	116.0	81.0	2220	16.9	76	europe	
184	25.0	4	140.0	92.0	2572	14.9	76	usa	
185	26.0	4	98.0	79.0	2255	17.7	76	usa	
186	27.0	4	101.0	83.0	2202	15.3	76	europe	
187	17.5	8	305.0	140.0	4215	13.0	76	usa	
188	16.0	8	318.0	150.0	4190	13.0	76	usa	
189	15.5	8	304.0	120.0	3962	13.9	76	usa	
190	14.5	8	351.0	152.0	4215	12.8	76	usa	
191	22.0	6	225.0	100.0	3233	15.4	76	usa	
192	22.0	6	250.0	105.0	3353	14.5	76	usa	
193	24.0	6	200.0	81.0	3012	17.6	76	usa	
194	22.5	6	232.0	90.0	3085	17.6	76	usa	
195	29.0	4	85.0	52.0	2035	22.2	76	usa	
196	24.5	4	98.0	60.0	2164	22.1	76	usa	
197	29.0	4	90.0	70.0	1937	14.2	76	europe	
198	33.0	4	91.0	53.0	1795	17.4	76	japan	
199	20.0	6	225.0	100.0	3651	17.7	76	usa	
200	18.0	6	250.0	78.0	3574	21.0	76	usa	
201	18.5	6	250.0	110.0	3645	16.2	76	usa	
202	17.5	6	258.0	95.0	3193	17.8	76	usa	
203	29.5	4	97.0	71.0	1825	12.2	76	europe	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
204	32.0	4	85.0	70.0	1990	17.0	76	japan	
205	28.0	4	97.0	75.0	2155	16.4	76	japan	
206	26.5	4	140.0	72.0	2565	13.6	76	usa	
207	20.0	4	130.0	102.0	3150	15.7	76	europe	
208	13.0	8	318.0	150.0	3940	13.2	76	usa	
209	19.0	4	120.0	88.0	3270	21.9	76	europe	p
210	19.0	6	156.0	108.0	2930	15.5	76	japan	t
211	16.5	6	168.0	120.0	3820	16.7	76	europe	
212	16.5	8	350.0	180.0	4380	12.1	76	usa	
213	13.0	8	350.0	145.0	4055	12.0	76	usa	
214	13.0	8	302.0	130.0	3870	15.0	76	usa	
215	13.0	8	318.0	150.0	3755	14.0	76	usa	(
216	31.5	4	98.0	68.0	2045	18.5	77	japan	a
217	30.0	4	111.0	80.0	2155	14.8	77	usa	is
218	36.0	4	79.0	58.0	1825	18.6	77	europe	r
219	25.5	4	122.0	96.0	2300	15.5	77	usa	
220	33.5	4	85.0	70.0	1945	16.8	77	japan	
221	17.5	8	305.0	145.0	3880	12.5	77	usa	
222	17.0	8	260.0	110.0	4060	19.0	77	usa	
223	15.5	8	318.0	145.0	4140	13.7	77	usa	
224	15.0	8	302.0	130.0	4295	14.9	77	usa	
225	17.5	6	250.0	110.0	3520	16.4	77	usa	
226	20.5	6	231.0	105.0	3425	16.9	77	usa	
227	19.0	6	225.0	100.0	3630	17.7	77	usa	
228	18.5	6	250.0	98.0	3525	19.0	77	usa	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
229	16.0	8	400.0	180.0	4220	11.1	77	usa
230	15.5	8	350.0	170.0	4165	11.4	77	usa
231	15.5	8	400.0	190.0	4325	12.2	77	usa
232	16.0	8	351.0	149.0	4335	14.5	77	usa
233	29.0	4	97.0	78.0	1940	14.5	77	europe
234	24.5	4	151.0	88.0	2740	16.0	77	usa
235	26.0	4	97.0	75.0	2265	18.2	77	japan
236	25.5	4	140.0	89.0	2755	15.8	77	usa
237	30.5	4	98.0	63.0	2051	17.0	77	usa
238	33.5	4	98.0	83.0	2075	15.9	77	usa
239	30.0	4	97.0	67.0	1985	16.4	77	japan
240	30.5	4	97.0	78.0	2190	14.1	77	europe
241	22.0	6	146.0	97.0	2815	14.5	77	japan
242	21.5	4	121.0	110.0	2600	12.8	77	europe
243	21.5	3	80.0	110.0	2720	13.5	77	japan
244	43.1	4	90.0	48.0	1985	21.5	78	europe
245	36.1	4	98.0	66.0	1800	14.4	78	usa
246	32.8	4	78.0	52.0	1985	19.4	78	japan
247	39.4	4	85.0	70.0	2070	18.6	78	japan
248	36.1	4	91.0	60.0	1800	16.4	78	japan
249	19.9	8	260.0	110.0	3365	15.5	78	usa
250	19.4	8	318.0	140.0	3735	13.2	78	usa
251	20.2	8	302.0	139.0	3570	12.8	78	usa

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
252	19.2	6	231.0	105.0	3535	19.2	78	usa
253	20.5	6	200.0	95.0	3155	18.2	78	usa
254	20.2	6	200.0	85.0	2965	15.8	78	usa
255	25.1	4	140.0	88.0	2720	15.4	78	usa
256	20.5	6	225.0	100.0	3430	17.2	78	usa
257	19.4	6	232.0	90.0	3210	17.2	78	usa
258	20.6	6	231.0	105.0	3380	15.8	78	usa
259	20.8	6	200.0	85.0	3070	16.7	78	usa
260	18.6	6	225.0	110.0	3620	18.7	78	usa
261	18.1	6	258.0	120.0	3410	15.1	78	usa
262	19.2	8	305.0	145.0	3425	13.2	78	usa
263	17.7	6	231.0	165.0	3445	13.4	78	usa
264	18.1	8	302.0	139.0	3205	11.2	78	usa
265	17.5	8	318.0	140.0	4080	13.7	78	usa
266	30.0	4	98.0	68.0	2155	16.5	78	usa
267	27.5	4	134.0	95.0	2560	14.2	78	japan
268	27.2	4	119.0	97.0	2300	14.7	78	japan
269	30.9	4	105.0	75.0	2230	14.5	78	usa
270	21.1	4	134.0	95.0	2515	14.8	78	japan
271	23.2	4	156.0	105.0	2745	16.7	78	usa
272	23.8	4	151.0	85.0	2855	17.6	78	usa
273	23.9	4	119.0	97.0	2405	14.9	78	japan
274	20.3	5	131.0	103.0	2830	15.9	78	europe
275	17.0	6	163.0	125.0	3140	13.6	78	europe
276	21.6	4	121.0	115.0	2795	15.7	78	europe

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
277	16.2	6	163.0	133.0	3410	15.8	78	europe	
278	31.5	4	89.0	71.0	1990	14.9	78	europe	v
279	29.5	4	98.0	68.0	2135	16.6	78	japan	
280	21.5	6	231.0	115.0	3245	15.4	79	usa	
281	19.8	6	200.0	85.0	2990	18.2	79	usa	
282	22.3	4	140.0	88.0	2890	17.3	79	usa	
283	20.2	6	232.0	90.0	3265	18.2	79	usa	c
284	20.6	6	225.0	110.0	3360	16.6	79	usa	
285	17.0	8	305.0	130.0	3840	15.4	79	usa	
286	17.6	8	302.0	129.0	3725	13.4	79	usa	
287	16.5	8	351.0	138.0	3955	13.2	79	usa	
288	18.2	8	318.0	135.0	3830	15.2	79	usa	
289	16.9	8	350.0	155.0	4360	14.9	79	usa	b
290	15.5	8	351.0	142.0	4054	14.3	79	usa	f
291	19.2	8	267.0	125.0	3605	15.0	79	usa	
292	18.5	8	360.0	150.0	3940	13.0	79	usa	c
293	31.9	4	89.0	71.0	1925	14.0	79	europe	
294	34.1	4	86.0	65.0	1975	15.2	79	japan	
295	35.7	4	98.0	80.0	1915	14.4	79	usa	
296	27.4	4	121.0	80.0	2670	15.0	79	usa	a
297	25.4	5	183.0	77.0	3530	20.1	79	europe	
298	23.0	8	350.0	125.0	3900	17.4	79	usa	
299	27.2	4	141.0	71.0	3190	24.8	79	europe	p

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
300	23.9	8	260.0	90.0	3420	22.2	79	usa
301	34.2	4	105.0	70.0	2200	13.2	79	usa
302	34.5	4	105.0	70.0	2150	14.9	79	usa
303	31.8	4	85.0	65.0	2020	19.2	79	japan
304	37.3	4	91.0	69.0	2130	14.7	79	europe
305	28.4	4	151.0	90.0	2670	16.0	79	usa
306	28.8	6	173.0	115.0	2595	11.3	79	usa
307	26.8	6	173.0	115.0	2700	12.9	79	usa
308	33.5	4	151.0	90.0	2556	13.2	79	usa
309	41.5	4	98.0	76.0	2144	14.7	80	europe
310	38.1	4	89.0	60.0	1968	18.8	80	japan
311	32.1	4	98.0	70.0	2120	15.5	80	usa
312	37.2	4	86.0	65.0	2019	16.4	80	japan
313	28.0	4	151.0	90.0	2678	16.5	80	usa
314	26.4	4	140.0	88.0	2870	18.1	80	usa
315	24.3	4	151.0	90.0	3003	20.1	80	usa
316	19.1	6	225.0	90.0	3381	18.7	80	usa
317	34.3	4	97.0	78.0	2188	15.8	80	europe
318	29.8	4	134.0	90.0	2711	15.5	80	japan
319	31.3	4	120.0	75.0	2542	17.5	80	japan
320	37.0	4	119.0	92.0	2434	15.0	80	japan
321	32.2	4	108.0	75.0	2265	15.2	80	japan
322	46.6	4	86.0	65.0	2110	17.9	80	japan
323	27.9	4	156.0	105.0	2800	14.4	80	usa
324	40.8	4	85.0	65.0	2110	19.2	80	japan
325	44.3	4	90.0	48.0	2085	21.7	80	europe

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
326	43.4	4	90.0	48.0	2335	23.7	80	europe
327	36.4	5	121.0	67.0	2950	19.9	80	europe
328	30.0	4	146.0	67.0	3250	21.8	80	europe
329	44.6	4	91.0	67.0	1850	13.8	80	japan
330	40.9	4	85.0	NaN	1835	17.3	80	europe
331	33.8	4	97.0	67.0	2145	18.0	80	japan
332	29.8	4	89.0	62.0	1845	15.3	80	europe
333	32.7	6	168.0	132.0	2910	11.4	80	japan
334	23.7	3	70.0	100.0	2420	12.5	80	japan
335	35.0	4	122.0	88.0	2500	15.1	80	europe
336	23.6	4	140.0	NaN	2905	14.3	80	usa
337	32.4	4	107.0	72.0	2290	17.0	80	japan
338	27.2	4	135.0	84.0	2490	15.7	81	usa
339	26.6	4	151.0	84.0	2635	16.4	81	usa
340	25.8	4	156.0	92.0	2620	14.4	81	usa
341	23.5	6	173.0	110.0	2725	12.6	81	usa
342	30.0	4	135.0	84.0	2385	12.9	81	usa
343	39.1	4	79.0	58.0	1755	16.9	81	japan
344	39.0	4	86.0	64.0	1875	16.4	81	usa
345	35.1	4	81.0	60.0	1760	16.1	81	japan
346	32.3	4	97.0	67.0	2065	17.8	81	japan
347	37.0	4	85.0	65.0	1975	19.4	81	japan
348	37.7	4	89.0	62.0	2050	17.3	81	japan
349	34.1	4	91.0	68.0	1985	16.0	81	japan
350	34.7	4	105.0	63.0	2215	14.9	81	usa
351	34.4	4	98.0	65.0	2045	16.2	81	usa

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
352	29.9	4	98.0	65.0	2380	20.7	81	usa
353	33.0	4	105.0	74.0	2190	14.2	81	europe
354	34.5	4	100.0	NaN	2320	15.8	81	europe
355	33.7	4	107.0	75.0	2210	14.4	81	japan
356	32.4	4	108.0	75.0	2350	16.8	81	japan
357	32.9	4	119.0	100.0	2615	14.8	81	japan
358	31.6	4	120.0	74.0	2635	18.3	81	japan
359	28.1	4	141.0	80.0	3230	20.4	81	europe
360	30.7	6	145.0	76.0	3160	19.6	81	europe
361	25.4	6	168.0	116.0	2900	12.6	81	japan
362	24.2	6	146.0	120.0	2930	13.8	81	japan
363	22.4	6	231.0	110.0	3415	15.8	81	usa
364	26.6	8	350.0	105.0	3725	19.0	81	usa
365	20.2	6	200.0	88.0	3060	17.1	81	usa
366	17.6	6	225.0	85.0	3465	16.6	81	usa
367	28.0	4	112.0	88.0	2605	19.6	82	usa
368	27.0	4	112.0	88.0	2640	18.6	82	usa
369	34.0	4	112.0	88.0	2395	18.0	82	usa
370	31.0	4	112.0	85.0	2575	16.2	82	usa
371	29.0	4	135.0	84.0	2525	16.0	82	usa
372	27.0	4	151.0	90.0	2735	18.0	82	usa
373	24.0	4	140.0	92.0	2865	16.4	82	usa
374	23.0	4	151.0	NaN	3035	20.5	82	usa
375	36.0	4	105.0	74.0	1980	15.3	82	europe

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
376	37.0	4	91.0	68.0	2025	18.2	82	japan	
377	31.0	4	91.0	68.0	1970	17.6	82	japan	
378	38.0	4	105.0	63.0	2125	14.7	82	usa	
379	36.0	4	98.0	70.0	2125	17.3	82	usa	
380	36.0	4	120.0	88.0	2160	14.5	82	japan	
381	36.0	4	107.0	75.0	2205	14.5	82	japan	
382	34.0	4	108.0	70.0	2245	16.9	82	japan	
383	38.0	4	91.0	67.0	1965	15.0	82	japan	
384	32.0	4	91.0	67.0	1965	15.7	82	japan	
385	38.0	4	91.0	67.0	1995	16.2	82	japan	
386	25.0	6	181.0	110.0	2945	16.4	82	usa	
387	38.0	6	262.0	85.0	3015	17.0	82	usa	c
388	26.0	4	156.0	92.0	2585	14.5	82	usa	
389	22.0	6	232.0	112.0	2835	14.7	82	usa	
390	32.0	4	144.0	96.0	2665	13.9	82	japan	t
391	36.0	4	135.0	84.0	2370	13.0	82	usa	
392	27.0	4	151.0	90.0	2950	17.3	82	usa	
393	27.0	4	140.0	86.0	2790	15.6	82	usa	
394	44.0	4	97.0	52.0	2130	24.6	82	europe	
395	32.0	4	135.0	84.0	2295	11.6	82	usa	
396	28.0	4	120.0	79.0	2625	18.6	82	usa	
397	31.0	4	119.0	82.0	2720	19.4	82	usa	

In [ ]:

```
car = mpg.copy()
```

In [ ]:

```
mpg =  mpg.drop('cylinders',axis=1)
```

In [ ]:

```
mpg.columns
```

Out[ ]:

```
Index(['mpg', 'displacement', 'horsepower', 'weight', 'acceleratio
n',
       'model_year', 'origin', 'name'],
      dtype='object')
```

In [ ]:

```
car.columns
```

Out[ ]:

```
Index(['mpg', 'cylinders', 'displacement', 'horsepower', 'weight',
       'acceleration', 'model_year', 'origin', 'name'],
      dtype='object')
```

In [ ]:

```
car.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 398 entries, 0 to 397
Data columns (total 9 columns):
 #   Column        Non-Null Count  Dtype  
---  ------        --------------  -----  
 0   mpg           398 non-null    float64
 1   cylinders     398 non-null    int64  
 2   displacement  398 non-null    float64
 3   horsepower    392 non-null    float64
 4   weight        398 non-null    int64  
 5   acceleration  398 non-null    float64
 6   model_year    398 non-null    int64  
 7   origin        398 non-null    object 
 8   name          398 non-null    object 
dtypes: float64(4), int64(3), object(2)
memory usage: 28.1+ KB
```

In [ ]:

```
car.describe()
```

Out[ ]:

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_
count	398.000000	398.000000	398.000000	392.000000	398.000000	398.000000	398.00
mean	23.514573	5.454774	193.425879	104.469388	2970.424623	15.568090	76.01
std	7.815984	1.701004	104.269838	38.491160	846.841774	2.757689	3.69
min	9.000000	3.000000	68.000000	46.000000	1613.000000	8.000000	70.00
25%	17.500000	4.000000	104.250000	75.000000	2223.750000	13.825000	73.00
50%	23.000000	4.000000	148.500000	93.500000	2803.500000	15.500000	76.00
75%	29.000000	8.000000	262.000000	126.000000	3608.000000	17.175000	79.00
max	46.600000	8.000000	455.000000	230.000000	5140.000000	24.800000	82.00

In [ ]:

```
car[['cylinders','origin']].value_counts()
```

Out[ ]:

```
cylinders  origin
8          usa       103
6          usa        74
4          usa        72
           japan      69
           europe     63
6          japan       6
3          japan       4
6          europe      4
5          europe      3
dtype: int64
```

In [ ]:

```
car[['origin']].value_counts()
```

Out[ ]:

```
origin
usa       249
japan      79
europe     70
dtype: int64
```

In [ ]:

```
car['origin'].unique()
```

Out[ ]:

```
array(['usa', 'japan', 'europe'], dtype=object)
```

In [ ]:

```
car['origin'].nunique()
```

Out[ ]:

3

In [ ]:

```
car.sort_values('displacement')
```

Out[ ]:

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
117	29.0	4	68.0	49.0	1867	19.5	73	europe	
71	19.0	3	70.0	97.0	2330	13.5	72	japan	
111	18.0	3	70.0	90.0	2124	13.5	73	japan	
334	23.7	3	70.0	100.0	2420	12.5	80	japan	
131	32.0	4	71.0	65.0	1836	21.0	74	japan	c
53	31.0	4	71.0	65.0	1773	19.0	71	japan	c
54	35.0	4	72.0	69.0	1613	18.0	71	japan	d
144	31.0	4	76.0	52.0	1649	16.5	74	japan	
246	32.8	4	78.0	52.0	1985	19.4	78	japan	
142	26.0	4	79.0	67.0	1963	15.5	74	europe	v
343	39.1	4	79.0	58.0	1755	16.9	81	japan	
51	30.0	4	79.0	70.0	2074	19.5	71	europe	p
218	36.0	4	79.0	58.0	1825	18.6	77	europe	r
151	31.0	4	79.0	67.0	2000	16.0	74	europe	
129	31.0	4	79.0	67.0	1950	19.0	74	japan	d
243	21.5	3	80.0	110.0	2720	13.5	77	japan	
345	35.1	4	81.0	60.0	1760	16.1	81	japan	
145	32.0	4	83.0	61.0	2003	19.0	74	japan	
195	29.0	4	85.0	52.0	2035	22.2	76	usa	
347	37.0	4	85.0	65.0	1975	19.4	81	japan	
324	40.8	4	85.0	65.0	2110	19.2	80	japan	
303	31.8	4	85.0	65.0	2020	19.2	79	japan	
330	40.9	4	85.0	NaN	1835	17.3	80	europe	r
220	33.5	4	85.0	70.0	1945	16.8	77	japan	
204	32.0	4	85.0	70.0	1990	17.0	76	japan	
247	39.4	4	85.0	70.0	2070	18.6	78	japan	d
294	34.1	4	86.0	65.0	1975	15.2	79	japan	
322	46.6	4	86.0	65.0	2110	17.9	80	japan	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
312	37.2	4	86.0	65.0	2019	16.4	80	japan	
344	39.0	4	86.0	64.0	1875	16.4	81	usa	
52	30.0	4	88.0	76.0	2065	14.5	71	europe	
332	29.8	4	89.0	62.0	1845	15.3	80	europe	
348	37.7	4	89.0	62.0	2050	17.3	81	japan	t
278	31.5	4	89.0	71.0	1990	14.9	78	europe	'
310	38.1	4	89.0	60.0	1968	18.8	80	japan	
293	31.9	4	89.0	71.0	1925	14.0	79	europe	
326	43.4	4	90.0	48.0	2335	23.7	80	europe	
244	43.1	4	90.0	48.0	1985	21.5	78	europe	'
197	29.0	4	90.0	70.0	1937	14.2	76	europe	
175	29.0	4	90.0	70.0	1937	14.0	75	europe	'
172	25.0	4	90.0	71.0	2223	16.5	75	europe	'
147	24.0	4	90.0	75.0	2108	15.5	74	europe	
146	28.0	4	90.0	75.0	2125	14.5	74	usa	
325	44.3	4	90.0	48.0	2085	21.7	80	europe	
304	37.3	4	91.0	69.0	2130	14.7	79	europe	
248	36.1	4	91.0	60.0	1800	16.4	78	japan	
181	33.0	4	91.0	53.0	1795	17.5	75	japan	
56	26.0	4	91.0	70.0	1955	20.5	71	usa	
198	33.0	4	91.0	53.0	1795	17.4	76	japan	
385	38.0	4	91.0	67.0	1995	16.2	82	japan	
349	34.1	4	91.0	68.0	1985	16.0	81	japan	r
384	32.0	4	91.0	67.0	1965	15.7	82	japan	
383	38.0	4	91.0	67.0	1965	15.0	82	japan	
377	31.0	4	91.0	68.0	1970	17.6	82	japan	
376	37.0	4	91.0	68.0	2025	18.2	82	japan	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
329	44.6	4	91.0	67.0	1850	13.8	80	japan	
79	26.0	4	96.0	69.0	2189	18.0	72	europe	
84	27.0	4	97.0	88.0	2100	16.5	72	japan	c
19	26.0	4	97.0	46.0	1835	20.5	70	europe	' 1
18	27.0	4	97.0	88.0	2130	14.5	70	japan	
240	30.5	4	97.0	78.0	2190	14.1	77	europe	'
235	26.0	4	97.0	75.0	2265	18.2	77	japan	
233	29.0	4	97.0	78.0	1940	14.5	77	europe	'
331	33.8	4	97.0	67.0	2145	18.0	80	japan	
102	26.0	4	97.0	46.0	1950	21.0	73	europe	' s
81	28.0	4	97.0	92.0	2288	17.0	72	japan	
108	20.0	4	97.0	88.0	2279	19.0	73	japan	
167	29.0	4	97.0	75.0	2171	16.0	75	japan	
394	44.0	4	97.0	52.0	2130	24.6	82	europe	
143	26.0	4	97.0	78.0	2300	14.5	74	europe	
205	28.0	4	97.0	75.0	2155	16.4	76	japan	
203	29.5	4	97.0	71.0	1825	12.2	76	europe	'
239	30.0	4	97.0	67.0	1985	16.4	77	japan	
59	23.0	4	97.0	54.0	2254	23.5	72	europe	'
346	32.3	4	97.0	67.0	2065	17.8	81	japan	
55	27.0	4	97.0	60.0	1834	19.0	71	europe	'
29	27.0	4	97.0	88.0	2130	14.5	71	japan	
317	34.3	4	97.0	78.0	2188	15.8	80	europe	
58	25.0	4	97.5	80.0	2126	17.0	72	usa	
237	30.5	4	98.0	63.0	2051	17.0	77	usa	
238	33.5	4	98.0	83.0	2075	15.9	77	usa	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
309	41.5	4	98.0	76.0	2144	14.7	80	europe
351	34.4	4	98.0	65.0	2045	16.2	81	usa
352	29.9	4	98.0	65.0	2380	20.7	81	usa
245	36.1	4	98.0	66.0	1800	14.4	78	usa
295	35.7	4	98.0	80.0	1915	14.4	79	usa
141	29.0	4	98.0	83.0	2219	16.5	74	europe
311	32.1	4	98.0	70.0	2120	15.5	80	usa
83	28.0	4	98.0	80.0	2164	15.0	72	usa
266	30.0	4	98.0	68.0	2155	16.5	78	usa
185	26.0	4	98.0	79.0	2255	17.7	76	usa
114	26.0	4	98.0	90.0	2265	15.5	73	europe
379	36.0	4	98.0	70.0	2125	17.3	82	usa
32	25.0	4	98.0	NaN	2046	19.0	71	usa
279	29.5	4	98.0	68.0	2135	16.6	78	japan
196	24.5	4	98.0	60.0	2164	22.1	76	usa
216	31.5	4	98.0	68.0	2045	18.5	77	japan
354	34.5	4	100.0	NaN	2320	15.8	81	europe
186	27.0	4	101.0	83.0	2202	15.3	76	europe
22	25.0	4	104.0	95.0	2375	17.5	70	europe
301	34.2	4	105.0	70.0	2200	13.2	79	usa
378	38.0	4	105.0	63.0	2125	14.7	82	usa
269	30.9	4	105.0	75.0	2230	14.5	78	usa
302	34.5	4	105.0	70.0	2150	14.9	79	usa
375	36.0	4	105.0	74.0	1980	15.3	82	europe
353	33.0	4	105.0	74.0	2190	14.2	81	europe
350	34.7	4	105.0	63.0	2215	14.9	81	usa
21	24.0	4	107.0	90.0	2430	14.5	70	europe
355	33.7	4	107.0	75.0	2210	14.4	81	japan

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
337	32.4	4	107.0	72.0	2290	17.0	80	japan	
381	36.0	4	107.0	75.0	2205	14.5	82	japan	
182	28.0	4	107.0	86.0	2464	15.5	76	europe	
150	26.0	4	108.0	93.0	2391	15.5	74	japan	
382	34.0	4	108.0	70.0	2245	16.9	82	japan	
356	32.4	4	108.0	75.0	2350	16.8	81	japan	
321	32.2	4	108.0	75.0	2265	15.2	80	japan	
110	22.0	4	108.0	94.0	2379	16.5	73	japan	
20	25.0	4	110.0	87.0	2672	17.5	70	europe	p
217	30.0	4	111.0	80.0	2155	14.8	77	usa	is
369	34.0	4	112.0	88.0	2395	18.0	82	usa	
368	27.0	4	112.0	88.0	2640	18.6	82	usa	
370	31.0	4	112.0	85.0	2575	16.2	82	usa	
367	28.0	4	112.0	88.0	2605	19.6	82	usa	
57	24.0	4	113.0	95.0	2278	15.5	72	japan	
31	25.0	4	113.0	95.0	2228	14.0	71	japan	
14	24.0	4	113.0	95.0	2372	15.0	70	japan	c
119	20.0	4	114.0	91.0	2582	14.0	73	europe	
177	23.0	4	115.0	95.0	2694	15.0	75	europe	
148	26.0	4	116.0	75.0	2246	14.0	74	europe	
118	24.0	4	116.0	75.0	2158	15.5	73	europe	
50	28.0	4	116.0	90.0	2123	14.0	71	europe	
183	25.0	4	116.0	81.0	2220	16.9	76	europe	
268	27.2	4	119.0	97.0	2300	14.7	78	japan	
273	23.9	4	119.0	97.0	2405	14.9	78	japan	(
320	37.0	4	119.0	92.0	2434	15.0	80	japan	
357	32.9	4	119.0	100.0	2615	14.8	81	japan	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
173	24.0	4	119.0	97.0	2545	17.0	75	japan	
397	31.0	4	119.0	82.0	2720	19.4	82	usa	
209	19.0	4	120.0	88.0	3270	21.9	76	europe	p
82	23.0	4	120.0	97.0	2506	14.5	72	japan	c
78	21.0	4	120.0	87.0	2979	19.5	72	europe	p
380	36.0	4	120.0	88.0	2160	14.5	82	japan	
149	24.0	4	120.0	97.0	2489	15.0	74	japan	
396	28.0	4	120.0	79.0	2625	18.6	82	usa	
358	31.6	4	120.0	74.0	2635	18.3	81	japan	
178	23.0	4	120.0	88.0	2957	17.0	75	europe	p
319	31.3	4	120.0	75.0	2542	17.5	80	japan	
76	18.0	4	121.0	112.0	2933	14.5	72	europe	
180	25.0	4	121.0	115.0	2671	13.5	75	europe	
23	26.0	4	121.0	113.0	2234	12.5	70	europe	
179	22.0	4	121.0	98.0	2945	14.5	75	europe	
327	36.4	5	121.0	67.0	2950	19.9	80	europe	
77	22.0	4	121.0	76.0	2511	18.0	72	europe	'
122	24.0	4	121.0	110.0	2660	14.0	73	europe	
120	19.0	4	121.0	112.0	2868	15.5	73	europe	v
242	21.5	4	121.0	110.0	2600	12.8	77	europe	
296	27.4	4	121.0	80.0	2670	15.0	79	usa	a
276	21.6	4	121.0	115.0	2795	15.7	78	europe	
49	23.0	4	122.0	86.0	2220	14.0	71	usa	
112	19.0	4	122.0	85.0	2310	18.5	73	usa	
80	22.0	4	122.0	86.0	2395	16.0	72	usa	
219	25.5	4	122.0	96.0	2300	15.5	77	usa	
130	26.0	4	122.0	80.0	2451	16.5	74	usa	
335	35.0	4	122.0	88.0	2500	15.1	80	europe	
61	21.0	4	122.0	86.0	2226	16.5	72	usa	
207	20.0	4	130.0	102.0	3150	15.7	76	europe	
274	20.3	5	131.0	103.0	2830	15.9	78	europe	
270	21.1	4	134.0	95.0	2515	14.8	78	japan	t

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
318	29.8	4	134.0	90.0	2711	15.5	80	japan
171	24.0	4	134.0	96.0	2702	13.5	75	japan
267	27.5	4	134.0	95.0	2560	14.2	78	japan
395	32.0	4	135.0	84.0	2295	11.6	82	usa
342	30.0	4	135.0	84.0	2385	12.9	81	usa
371	29.0	4	135.0	84.0	2525	16.0	82	usa
391	36.0	4	135.0	84.0	2370	13.0	82	usa
338	27.2	4	135.0	84.0	2490	15.7	81	usa
30	28.0	4	140.0	90.0	2264	15.5	71	usa
170	23.0	4	140.0	78.0	2592	18.5	75	usa
393	27.0	4	140.0	86.0	2790	15.6	82	usa
236	25.5	4	140.0	89.0	2755	15.8	77	usa
60	20.0	4	140.0	90.0	2408	19.5	72	usa
132	25.0	4	140.0	75.0	2542	17.0	74	usa
282	22.3	4	140.0	88.0	2890	17.3	79	usa
206	26.5	4	140.0	72.0	2565	13.6	76	usa
373	24.0	4	140.0	92.0	2865	16.4	82	usa
336	23.6	4	140.0	NaN	2905	14.3	80	usa
255	25.1	4	140.0	88.0	2720	15.4	78	usa
168	23.0	4	140.0	83.0	2639	17.0	75	usa
109	21.0	4	140.0	72.0	2401	19.5	73	usa
184	25.0	4	140.0	92.0	2572	14.9	76	usa
46	22.0	4	140.0	72.0	2408	19.0	71	usa
314	26.4	4	140.0	88.0	2870	18.1	80	usa
299	27.2	4	141.0	71.0	3190	24.8	79	europe

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
359	28.1	4	141.0	80.0	3230	20.4	81	europe
390	32.0	4	144.0	96.0	2665	13.9	82	japan
360	30.7	6	145.0	76.0	3160	19.6	81	europe
241	22.0	6	146.0	97.0	2815	14.5	77	japan
362	24.2	6	146.0	120.0	2930	13.8	81	japan
328	30.0	4	146.0	67.0	3250	21.8	80	europe
313	28.0	4	151.0	90.0	2678	16.5	80	usa
372	27.0	4	151.0	90.0	2735	18.0	82	usa
392	27.0	4	151.0	90.0	2950	17.3	82	usa
234	24.5	4	151.0	88.0	2740	16.0	77	usa
315	24.3	4	151.0	90.0	3003	20.1	80	usa
308	33.5	4	151.0	90.0	2556	13.2	79	usa
374	23.0	4	151.0	NaN	3035	20.5	82	usa
339	26.6	4	151.0	84.0	2635	16.4	81	usa
272	23.8	4	151.0	85.0	2855	17.6	78	usa
305	28.4	4	151.0	90.0	2670	16.0	79	usa
113	21.0	6	155.0	107.0	2472	14.0	73	usa
123	20.0	6	156.0	122.0	2807	13.5	73	japan
271	23.2	4	156.0	105.0	2745	16.7	78	usa
323	27.9	4	156.0	105.0	2800	14.4	80	usa
340	25.8	4	156.0	92.0	2620	14.4	81	usa
210	19.0	6	156.0	108.0	2930	15.5	76	japan
388	26.0	4	156.0	92.0	2585	14.5	82	usa
275	17.0	6	163.0	125.0	3140	13.6	78	europe
277	16.2	6	163.0	133.0	3410	15.8	78	europe

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
211	16.5	6	168.0	120.0	3820	16.7	76	europe
361	25.4	6	168.0	116.0	2900	12.6	81	japan
333	32.7	6	168.0	132.0	2910	11.4	80	japan
174	18.0	6	171.0	97.0	2984	14.5	75	usa
341	23.5	6	173.0	110.0	2725	12.6	81	usa
306	28.8	6	173.0	115.0	2595	11.3	79	usa
307	26.8	6	173.0	115.0	2700	12.9	79	usa
386	25.0	6	181.0	110.0	2945	16.4	82	usa
297	25.4	5	183.0	77.0	3530	20.1	79	europe
125	20.0	6	198.0	95.0	3102	16.5	74	usa
15	22.0	6	198.0	95.0	2833	15.5	70	usa
101	23.0	6	198.0	95.0	2904	16.0	73	usa
24	21.0	6	199.0	90.0	2648	15.0	70	usa
16	18.0	6	199.0	97.0	2774	15.5	70	usa
365	20.2	6	200.0	88.0	3060	17.1	81	usa
253	20.5	6	200.0	95.0	3155	18.2	78	usa
259	20.8	6	200.0	85.0	3070	16.7	78	usa
193	24.0	6	200.0	81.0	3012	17.6	76	usa
126	21.0	6	200.0	NaN	2875	17.0	74	usa
17	21.0	6	200.0	85.0	2587	16.0	70	usa
281	19.8	6	200.0	85.0	2990	18.2	79	usa
254	20.2	6	200.0	85.0	2965	15.8	78	usa
284	20.6	6	225.0	110.0	3360	16.6	79	usa
316	19.1	6	225.0	90.0	3381	18.7	80	usa
256	20.5	6	225.0	100.0	3430	17.2	78	usa

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
34	16.0	6	225.0	105.0	3439	15.5	71	usa
227	19.0	6	225.0	100.0	3630	17.7	77	usa
260	18.6	6	225.0	110.0	3620	18.7	78	usa
199	20.0	6	225.0	100.0	3651	17.7	76	usa
152	19.0	6	225.0	95.0	3264	16.0	75	usa
366	17.6	6	225.0	85.0	3465	16.6	81	usa
135	18.0	6	225.0	105.0	3613	16.5	74	usa
163	18.0	6	225.0	95.0	3785	19.0	75	usa
97	18.0	6	225.0	105.0	3121	16.5	73	usa
191	22.0	6	225.0	100.0	3233	15.4	76	usa
280	21.5	6	231.0	115.0	3245	15.4	79	usa
258	20.6	6	231.0	105.0	3380	15.8	78	usa
263	17.7	6	231.0	165.0	3445	13.4	78	usa
363	22.4	6	231.0	110.0	3415	15.8	81	usa
160	17.0	6	231.0	110.0	3907	21.0	75	usa
164	21.0	6	231.0	110.0	3039	15.0	75	usa
252	19.2	6	231.0	105.0	3535	19.2	78	usa
226	20.5	6	231.0	105.0	3425	16.9	77	usa
389	22.0	6	232.0	112.0	2835	14.7	82	usa
176	19.0	6	232.0	90.0	3211	17.0	75	usa
194	22.5	6	232.0	90.0	3085	17.6	76	usa
107	18.0	6	232.0	100.0	2789	15.0	73	usa
99	18.0	6	232.0	100.0	2945	16.0	73	usa
283	20.2	6	232.0	90.0	3265	18.2	79	usa

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
37	18.0	6	232.0	100.0	3288	15.5	71	usa	
127	19.0	6	232.0	100.0	2901	16.0	74	usa	
257	19.4	6	232.0	90.0	3210	17.2	78	usa	
169	20.0	6	232.0	100.0	2914	16.0	75	usa	a
33	19.0	6	232.0	100.0	2634	13.0	71	usa	a
48	18.0	6	250.0	88.0	3139	14.5	71	usa	
47	19.0	6	250.0	100.0	3282	15.0	71	usa	
192	22.0	6	250.0	105.0	3353	14.5	76	usa	
161	16.0	6	250.0	105.0	3897	18.5	75	usa	
200	18.0	6	250.0	78.0	3574	21.0	76	usa	
201	18.5	6	250.0	110.0	3645	16.2	76	usa	
100	18.0	6	250.0	88.0	3021	16.5	73	usa	
35	17.0	6	250.0	100.0	3329	15.5	71	usa	
98	16.0	6	250.0	100.0	3278	18.0	73	usa	
133	16.0	6	250.0	100.0	3781	17.0	74	usa	
154	15.0	6	250.0	72.0	3432	21.0	75	usa	
155	15.0	6	250.0	72.0	3158	19.5	75	usa	
228	18.5	6	250.0	98.0	3525	19.0	77	usa	
153	18.0	6	250.0	105.0	3459	16.0	75	usa	
225	17.5	6	250.0	110.0	3520	16.4	77	usa	
128	15.0	6	250.0	100.0	3336	17.0	74	usa	
36	19.0	6	250.0	88.0	3302	15.5	71	usa	
45	18.0	6	258.0	110.0	2962	13.5	71	usa	
261	18.1	6	258.0	120.0	3410	15.1	78	usa	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
202	17.5	6	258.0	95.0	3193	17.8	76	usa	
162	15.0	6	258.0	110.0	3730	19.0	75	usa	
134	16.0	6	258.0	110.0	3632	18.0	74	usa	
249	19.9	8	260.0	110.0	3365	15.5	78	usa	
300	23.9	8	260.0	90.0	3420	22.2	79	usa	
222	17.0	8	260.0	110.0	4060	19.0	77	usa	
387	38.0	6	262.0	85.0	3015	17.0	82	usa	c
165	20.0	8	262.0	110.0	3221	13.5	75	usa	
291	19.2	8	267.0	125.0	3605	15.0	79	usa	
74	13.0	8	302.0	140.0	4294	16.0	72	usa	
139	14.0	8	302.0	140.0	4638	16.0	74	usa	
4	17.0	8	302.0	140.0	3449	10.5	70	usa	
136	16.0	8	302.0	140.0	4141	14.0	74	usa	
214	13.0	8	302.0	130.0	3870	15.0	76	usa	
224	15.0	8	302.0	130.0	4295	14.9	77	usa	
251	20.2	8	302.0	139.0	3570	12.8	78	usa	
264	18.1	8	302.0	139.0	3205	11.2	78	usa	
166	13.0	8	302.0	129.0	3169	12.0	75	usa	
88	14.0	8	302.0	137.0	4042	14.5	73	usa	
286	17.6	8	302.0	129.0	3725	13.4	79	usa	
72	15.0	8	304.0	150.0	3892	12.5	72	usa	
140	14.0	8	304.0	150.0	4257	15.5	74	usa	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
66	17.0	8	304.0	150.0	3672	11.5	72	usa	a
189	15.5	8	304.0	120.0	3962	13.9	76	usa	
3	16.0	8	304.0	150.0	3433	12.0	70	usa	
86	14.0	8	304.0	150.0	3672	11.5	73	usa	
28	9.0	8	304.0	193.0	4732	18.5	70	usa	
285	17.0	8	305.0	130.0	3840	15.4	79	usa	
187	17.5	8	305.0	140.0	4215	13.0	76	usa	
262	19.2	8	305.0	145.0	3425	13.2	78	usa	l
221	17.5	8	305.0	145.0	3880	12.5	77	usa	
26	10.0	8	307.0	200.0	4376	15.0	70	usa	
0	18.0	8	307.0	130.0	3504	12.0	70	usa	
73	13.0	8	307.0	130.0	4098	14.0	72	usa	
75	14.0	8	318.0	150.0	4077	14.0	72	usa	c
89	15.0	8	318.0	150.0	3777	12.5	73	usa	
27	11.0	8	318.0	210.0	4382	13.5	70	usa	c
288	18.2	8	318.0	135.0	3830	15.2	79	usa	
188	16.0	8	318.0	150.0	4190	13.0	76	usa	
2	18.0	8	318.0	150.0	3436	11.0	70	usa	
121	15.0	8	318.0	150.0	3399	11.0	73	usa	
93	14.0	8	318.0	150.0	4237	14.5	73	usa	
265	17.5	8	318.0	140.0	4080	13.7	78	usa	l

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
138	14.0	8	318.0	150.0	4457	13.5	74	usa
158	16.0	8	318.0	150.0	4498	14.5	75	usa
208	13.0	8	318.0	150.0	3940	13.2	76	usa
223	15.5	8	318.0	145.0	4140	13.7	77	usa
215	13.0	8	318.0	150.0	3755	14.0	76	usa
64	15.0	8	318.0	150.0	4135	13.5	72	usa
41	14.0	8	318.0	150.0	4096	13.0	71	usa
250	19.4	8	318.0	140.0	3735	13.2	78	usa
11	14.0	8	340.0	160.0	3609	8.0	70	usa
106	12.0	8	350.0	180.0	4499	12.5	73	usa
62	13.0	8	350.0	165.0	4274	12.0	72	usa
230	15.5	8	350.0	170.0	4165	11.4	77	usa
364	26.6	8	350.0	105.0	3725	19.0	81	usa
87	13.0	8	350.0	145.0	3988	13.0	73	usa
85	13.0	8	350.0	175.0	4100	13.0	73	usa
137	13.0	8	350.0	150.0	4699	14.5	74	usa
38	14.0	8	350.0	165.0	4209	12.0	71	usa
1	15.0	8	350.0	165.0	3693	11.5	70	usa
68	13.0	8	350.0	155.0	4502	13.5	72	usa
69	12.0	8	350.0	160.0	4456	13.5	72	usa
157	15.0	8	350.0	145.0	4440	14.0	75	usa
124	11.0	8	350.0	180.0	3664	11.0	73	usa
213	13.0	8	350.0	145.0	4055	12.0	76	usa

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
298	23.0	8	350.0	125.0	3900	17.4	79	usa	
212	16.5	8	350.0	180.0	4380	12.1	76	usa	
289	16.9	8	350.0	155.0	4360	14.9	79	usa	b
115	15.0	8	350.0	145.0	4082	13.0	73	usa	c
92	13.0	8	351.0	158.0	4363	13.0	73	usa	
190	14.5	8	351.0	152.0	4215	12.8	76	usa	
232	16.0	8	351.0	149.0	4335	14.5	77	usa	
159	14.0	8	351.0	148.0	4657	13.5	75	usa	
290	15.5	8	351.0	142.0	4054	14.3	79	usa	f
287	16.5	8	351.0	138.0	3955	13.2	79	usa	
65	14.0	8	351.0	153.0	4129	13.0	72	usa	
40	14.0	8	351.0	153.0	4154	13.5	71	usa	
105	13.0	8	360.0	170.0	4654	13.0	73	usa	
96	13.0	8	360.0	175.0	3821	11.0	73	usa	a
292	18.5	8	360.0	150.0	3940	13.0	79	usa	
									c
25	10.0	8	360.0	215.0	4615	14.0	70	usa	
42	12.0	8	383.0	180.0	4955	11.5	71	usa	
10	15.0	8	383.0	170.0	3563	10.0	70	usa	
9	15.0	8	390.0	190.0	3850	8.5	70	usa	a
91	13.0	8	400.0	150.0	4464	12.0	73	usa	
156	16.0	8	400.0	170.0	4668	11.5	75	usa	
44	13.0	8	400.0	175.0	5140	12.0	71	usa	
43	13.0	8	400.0	170.0	4746	12.0	71	usa	f

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
70	13.0	8	400.0	190.0	4422	12.5	72	usa
116	16.0	8	400.0	230.0	4278	9.5	73	usa
39	14.0	8	400.0	175.0	4464	11.5	71	usa
12	15.0	8	400.0	150.0	3761	9.5	70	usa
63	14.0	8	400.0	175.0	4385	12.0	72	usa
231	15.5	8	400.0	190.0	4325	12.2	77	usa
104	12.0	8	400.0	167.0	4906	12.5	73	usa
103	11.0	8	400.0	150.0	4997	14.0	73	usa
229	16.0	8	400.0	180.0	4220	11.1	77	usa
5	15.0	8	429.0	198.0	4341	10.0	70	usa
90	12.0	8	429.0	198.0	4952	11.5	73	usa
67	11.0	8	429.0	208.0	4633	11.0	72	usa
7	14.0	8	440.0	215.0	4312	8.5	70	usa
94	13.0	8	440.0	215.0	4735	11.0	73	usa
6	14.0	8	454.0	220.0	4354	9.0	70	usa
95	12.0	8	455.0	225.0	4951	11.0	73	usa
8	14.0	8	455.0	225.0	4425	10.0	70	usa
13	14.0	8	455.0	225.0	3086	10.0	70	usa

In [ ]:

```
car.sort_values('displacement',ascending=False)
```

Out[ ]:

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
8	14.0	8	455.0	225.0	4425	10.0	70	usa
95	12.0	8	455.0	225.0	4951	11.0	73	usa
13	14.0	8	455.0	225.0	3086	10.0	70	usa
6	14.0	8	454.0	220.0	4354	9.0	70	usa
7	14.0	8	440.0	215.0	4312	8.5	70	usa
94	13.0	8	440.0	215.0	4735	11.0	73	usa
90	12.0	8	429.0	198.0	4952	11.5	73	usa
67	11.0	8	429.0	208.0	4633	11.0	72	usa
5	15.0	8	429.0	198.0	4341	10.0	70	usa
39	14.0	8	400.0	175.0	4464	11.5	71	usa
44	13.0	8	400.0	175.0	5140	12.0	71	usa
116	16.0	8	400.0	230.0	4278	9.5	73	usa
63	14.0	8	400.0	175.0	4385	12.0	72	usa
70	13.0	8	400.0	190.0	4422	12.5	72	usa
229	16.0	8	400.0	180.0	4220	11.1	77	usa
43	13.0	8	400.0	170.0	4746	12.0	71	usa
156	16.0	8	400.0	170.0	4668	11.5	75	usa
91	13.0	8	400.0	150.0	4464	12.0	73	usa
231	15.5	8	400.0	190.0	4325	12.2	77	usa
104	12.0	8	400.0	167.0	4906	12.5	73	usa
103	11.0	8	400.0	150.0	4997	14.0	73	usa
12	15.0	8	400.0	150.0	3761	9.5	70	usa

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
9	15.0	8	390.0	190.0	3850	8.5	70	usa	a
10	15.0	8	383.0	170.0	3563	10.0	70	usa	
42	12.0	8	383.0	180.0	4955	11.5	71	usa	
292	18.5	8	360.0	150.0	3940	13.0	79	usa	
									c
25	10.0	8	360.0	215.0	4615	14.0	70	usa	
105	13.0	8	360.0	170.0	4654	13.0	73	usa	
96	13.0	8	360.0	175.0	3821	11.0	73	usa	a
92	13.0	8	351.0	158.0	4363	13.0	73	usa	
40	14.0	8	351.0	153.0	4154	13.5	71	usa	
232	16.0	8	351.0	149.0	4335	14.5	77	usa	
65	14.0	8	351.0	153.0	4129	13.0	72	usa	
190	14.5	8	351.0	152.0	4215	12.8	76	usa	
159	14.0	8	351.0	148.0	4657	13.5	75	usa	
290	15.5	8	351.0	142.0	4054	14.3	79	usa	f
287	16.5	8	351.0	138.0	3955	13.2	79	usa	
115	15.0	8	350.0	145.0	4082	13.0	73	usa	
69	12.0	8	350.0	160.0	4456	13.5	72	usa	
124	11.0	8	350.0	180.0	3664	11.0	73	usa	
213	13.0	8	350.0	145.0	4055	12.0	76	usa	
68	13.0	8	350.0	155.0	4502	13.5	72	usa	
1	15.0	8	350.0	165.0	3693	11.5	70	usa	
212	16.5	8	350.0	180.0	4380	12.1	76	usa	
62	13.0	8	350.0	165.0	4274	12.0	72	usa	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
230	15.5	8	350.0	170.0	4165	11.4	77	usa	
298	23.0	8	350.0	125.0	3900	17.4	79	usa	
137	13.0	8	350.0	150.0	4699	14.5	74	usa	
157	15.0	8	350.0	145.0	4440	14.0	75	usa	
106	12.0	8	350.0	180.0	4499	12.5	73	usa	
85	13.0	8	350.0	175.0	4100	13.0	73	usa	
87	13.0	8	350.0	145.0	3988	13.0	73	usa	
38	14.0	8	350.0	165.0	4209	12.0	71	usa	
289	16.9	8	350.0	155.0	4360	14.9	79	usa	
364	26.6	8	350.0	105.0	3725	19.0	81	usa	
11	14.0	8	340.0	160.0	3609	8.0	70	usa	
64	15.0	8	318.0	150.0	4135	13.5	72	usa	
89	15.0	8	318.0	150.0	3777	12.5	73	usa	
93	14.0	8	318.0	150.0	4237	14.5	73	usa	
215	13.0	8	318.0	150.0	3755	14.0	76	usa	
250	19.4	8	318.0	140.0	3735	13.2	78	usa	
75	14.0	8	318.0	150.0	4077	14.0	72	usa	
265	17.5	8	318.0	140.0	4080	13.7	78	usa	
223	15.5	8	318.0	145.0	4140	13.7	77	usa	
41	14.0	8	318.0	150.0	4096	13.0	71	usa	
2	18.0	8	318.0	150.0	3436	11.0	70	usa	
121	15.0	8	318.0	150.0	3399	11.0	73	usa	
158	16.0	8	318.0	150.0	4498	14.5	75	usa	
27	11.0	8	318.0	210.0	4382	13.5	70	usa	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
288	18.2	8	318.0	135.0	3830	15.2	79	usa	
208	13.0	8	318.0	150.0	3940	13.2	76	usa	
188	16.0	8	318.0	150.0	4190	13.0	76	usa	
138	14.0	8	318.0	150.0	4457	13.5	74	usa	c
0	18.0	8	307.0	130.0	3504	12.0	70	usa	
26	10.0	8	307.0	200.0	4376	15.0	70	usa	
73	13.0	8	307.0	130.0	4098	14.0	72	usa	
285	17.0	8	305.0	130.0	3840	15.4	79	usa	
221	17.5	8	305.0	145.0	3880	12.5	77	usa	
187	17.5	8	305.0	140.0	4215	13.0	76	usa	
262	19.2	8	305.0	145.0	3425	13.2	78	usa	i
28	9.0	8	304.0	193.0	4732	18.5	70	usa	
66	17.0	8	304.0	150.0	3672	11.5	72	usa	a
3	16.0	8	304.0	150.0	3433	12.0	70	usa	
72	15.0	8	304.0	150.0	3892	12.5	72	usa	
140	14.0	8	304.0	150.0	4257	15.5	74	usa	
86	14.0	8	304.0	150.0	3672	11.5	73	usa	
189	15.5	8	304.0	120.0	3962	13.9	76	usa	
264	18.1	8	302.0	139.0	3205	11.2	78	usa	
4	17.0	8	302.0	140.0	3449	10.5	70	usa	
224	15.0	8	302.0	130.0	4295	14.9	77	usa	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
136	16.0	8	302.0	140.0	4141	14.0	74	usa	
166	13.0	8	302.0	129.0	3169	12.0	75	usa	
88	14.0	8	302.0	137.0	4042	14.5	73	usa	
286	17.6	8	302.0	129.0	3725	13.4	79	usa	
74	13.0	8	302.0	140.0	4294	16.0	72	usa	
139	14.0	8	302.0	140.0	4638	16.0	74	usa	
214	13.0	8	302.0	130.0	3870	15.0	76	usa	
251	20.2	8	302.0	139.0	3570	12.8	78	usa	
291	19.2	8	267.0	125.0	3605	15.0	79	usa	
165	20.0	8	262.0	110.0	3221	13.5	75	usa	
387	38.0	6	262.0	85.0	3015	17.0	82	usa	c
222	17.0	8	260.0	110.0	4060	19.0	77	usa	
249	19.9	8	260.0	110.0	3365	15.5	78	usa	
300	23.9	8	260.0	90.0	3420	22.2	79	usa	
261	18.1	6	258.0	120.0	3410	15.1	78	usa	
162	15.0	6	258.0	110.0	3730	19.0	75	usa	
45	18.0	6	258.0	110.0	2962	13.5	71	usa	
134	16.0	6	258.0	110.0	3632	18.0	74	usa	
202	17.5	6	258.0	95.0	3193	17.8	76	usa	
100	18.0	6	250.0	88.0	3021	16.5	73	usa	
155	15.0	6	250.0	72.0	3158	19.5	75	usa	
161	16.0	6	250.0	105.0	3897	18.5	75	usa	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
35	17.0	6	250.0	100.0	3329	15.5	71	usa	
36	19.0	6	250.0	88.0	3302	15.5	71	usa	
133	16.0	6	250.0	100.0	3781	17.0	74	usa	
47	19.0	6	250.0	100.0	3282	15.0	71	usa	
48	18.0	6	250.0	88.0	3139	14.5	71	usa	
192	22.0	6	250.0	105.0	3353	14.5	76	usa	
128	15.0	6	250.0	100.0	3336	17.0	74	usa	
153	18.0	6	250.0	105.0	3459	16.0	75	usa	
228	18.5	6	250.0	98.0	3525	19.0	77	usa	
98	16.0	6	250.0	100.0	3278	18.0	73	usa	
225	17.5	6	250.0	110.0	3520	16.4	77	usa	
154	15.0	6	250.0	72.0	3432	21.0	75	usa	
201	18.5	6	250.0	110.0	3645	16.2	76	usa	
200	18.0	6	250.0	78.0	3574	21.0	76	usa	
389	22.0	6	232.0	112.0	2835	14.7	82	usa	
33	19.0	6	232.0	100.0	2634	13.0	71	usa	a
283	20.2	6	232.0	90.0	3265	18.2	79	usa	c
127	19.0	6	232.0	100.0	2901	16.0	74	usa	
99	18.0	6	232.0	100.0	2945	16.0	73	usa	
257	19.4	6	232.0	90.0	3210	17.2	78	usa	
176	19.0	6	232.0	90.0	3211	17.0	75	usa	
169	20.0	6	232.0	100.0	2914	16.0	75	usa	a
107	18.0	6	232.0	100.0	2789	15.0	73	usa	a
194	22.5	6	232.0	90.0	3085	17.6	76	usa	
37	18.0	6	232.0	100.0	3288	15.5	71	usa	
363	22.4	6	231.0	110.0	3415	15.8	81	usa	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
164	21.0	6	231.0	110.0	3039	15.0	75	usa
226	20.5	6	231.0	105.0	3425	16.9	77	usa
263	17.7	6	231.0	165.0	3445	13.4	78	usa
280	21.5	6	231.0	115.0	3245	15.4	79	usa
252	19.2	6	231.0	105.0	3535	19.2	78	usa
258	20.6	6	231.0	105.0	3380	15.8	78	usa
160	17.0	6	231.0	110.0	3907	21.0	75	usa
366	17.6	6	225.0	85.0	3465	16.6	81	usa
316	19.1	6	225.0	90.0	3381	18.7	80	usa
191	22.0	6	225.0	100.0	3233	15.4	76	usa
163	18.0	6	225.0	95.0	3785	19.0	75	usa
227	19.0	6	225.0	100.0	3630	17.7	77	usa
284	20.6	6	225.0	110.0	3360	16.6	79	usa
256	20.5	6	225.0	100.0	3430	17.2	78	usa
260	18.6	6	225.0	110.0	3620	18.7	78	usa
199	20.0	6	225.0	100.0	3651	17.7	76	usa
152	19.0	6	225.0	95.0	3264	16.0	75	usa
135	18.0	6	225.0	105.0	3613	16.5	74	usa
34	16.0	6	225.0	105.0	3439	15.5	71	usa
97	18.0	6	225.0	105.0	3121	16.5	73	usa
126	21.0	6	200.0	NaN	2875	17.0	74	usa
17	21.0	6	200.0	85.0	2587	16.0	70	usa
365	20.2	6	200.0	88.0	3060	17.1	81	usa

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
281	19.8	6	200.0	85.0	2990	18.2	79	usa
193	24.0	6	200.0	81.0	3012	17.6	76	usa
254	20.2	6	200.0	85.0	2965	15.8	78	usa
253	20.5	6	200.0	95.0	3155	18.2	78	usa
259	20.8	6	200.0	85.0	3070	16.7	78	usa
24	21.0	6	199.0	90.0	2648	15.0	70	usa
16	18.0	6	199.0	97.0	2774	15.5	70	usa
125	20.0	6	198.0	95.0	3102	16.5	74	usa
15	22.0	6	198.0	95.0	2833	15.5	70	usa
101	23.0	6	198.0	95.0	2904	16.0	73	usa
297	25.4	5	183.0	77.0	3530	20.1	79	europe
386	25.0	6	181.0	110.0	2945	16.4	82	usa
307	26.8	6	173.0	115.0	2700	12.9	79	usa
306	28.8	6	173.0	115.0	2595	11.3	79	usa
341	23.5	6	173.0	110.0	2725	12.6	81	usa
174	18.0	6	171.0	97.0	2984	14.5	75	usa
333	32.7	6	168.0	132.0	2910	11.4	80	japan
211	16.5	6	168.0	120.0	3820	16.7	76	europe
361	25.4	6	168.0	116.0	2900	12.6	81	japan
277	16.2	6	163.0	133.0	3410	15.8	78	europe
275	17.0	6	163.0	125.0	3140	13.6	78	europe
210	19.0	6	156.0	108.0	2930	15.5	76	japan
340	25.8	4	156.0	92.0	2620	14.4	81	usa
388	26.0	4	156.0	92.0	2585	14.5	82	usa
123	20.0	6	156.0	122.0	2807	13.5	73	japan

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
323	27.9	4	156.0	105.0	2800	14.4	80	usa
271	23.2	4	156.0	105.0	2745	16.7	78	usa
113	21.0	6	155.0	107.0	2472	14.0	73	usa
234	24.5	4	151.0	88.0	2740	16.0	77	usa
305	28.4	4	151.0	90.0	2670	16.0	79	usa
272	23.8	4	151.0	85.0	2855	17.6	78	usa
308	33.5	4	151.0	90.0	2556	13.2	79	usa
313	28.0	4	151.0	90.0	2678	16.5	80	usa
315	24.3	4	151.0	90.0	3003	20.1	80	usa
339	26.6	4	151.0	84.0	2635	16.4	81	usa
374	23.0	4	151.0	NaN	3035	20.5	82	usa
372	27.0	4	151.0	90.0	2735	18.0	82	usa
392	27.0	4	151.0	90.0	2950	17.3	82	usa
328	30.0	4	146.0	67.0	3250	21.8	80	europe
241	22.0	6	146.0	97.0	2815	14.5	77	japan
362	24.2	6	146.0	120.0	2930	13.8	81	japan
360	30.7	6	145.0	76.0	3160	19.6	81	europe
390	32.0	4	144.0	96.0	2665	13.9	82	japan
299	27.2	4	141.0	71.0	3190	24.8	79	europe
359	28.1	4	141.0	80.0	3230	20.4	81	europe
30	28.0	4	140.0	90.0	2264	15.5	71	usa
184	25.0	4	140.0	92.0	2572	14.9	76	usa
60	20.0	4	140.0	90.0	2408	19.5	72	usa
373	24.0	4	140.0	92.0	2865	16.4	82	usa
168	23.0	4	140.0	83.0	2639	17.0	75	usa
282	22.3	4	140.0	88.0	2890	17.3	79	usa

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
132	25.0	4	140.0	75.0	2542	17.0	74	usa
170	23.0	4	140.0	78.0	2592	18.5	75	usa
46	22.0	4	140.0	72.0	2408	19.0	71	usa
236	25.5	4	140.0	89.0	2755	15.8	77	usa
255	25.1	4	140.0	88.0	2720	15.4	78	usa
314	26.4	4	140.0	88.0	2870	18.1	80	usa
109	21.0	4	140.0	72.0	2401	19.5	73	usa
336	23.6	4	140.0	NaN	2905	14.3	80	usa
393	27.0	4	140.0	86.0	2790	15.6	82	usa
206	26.5	4	140.0	72.0	2565	13.6	76	usa
371	29.0	4	135.0	84.0	2525	16.0	82	usa
395	32.0	4	135.0	84.0	2295	11.6	82	usa
342	30.0	4	135.0	84.0	2385	12.9	81	usa
391	36.0	4	135.0	84.0	2370	13.0	82	usa
338	27.2	4	135.0	84.0	2490	15.7	81	usa
171	24.0	4	134.0	96.0	2702	13.5	75	japan
270	21.1	4	134.0	95.0	2515	14.8	78	japan
267	27.5	4	134.0	95.0	2560	14.2	78	japan
318	29.8	4	134.0	90.0	2711	15.5	80	japan
274	20.3	5	131.0	103.0	2830	15.9	78	europe
207	20.0	4	130.0	102.0	3150	15.7	76	europe
219	25.5	4	122.0	96.0	2300	15.5	77	usa
80	22.0	4	122.0	86.0	2395	16.0	72	usa
49	23.0	4	122.0	86.0	2220	14.0	71	usa
112	19.0	4	122.0	85.0	2310	18.5	73	usa

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
130	26.0	4	122.0	80.0	2451	16.5	74	usa	
335	35.0	4	122.0	88.0	2500	15.1	80	europe	
61	21.0	4	122.0	86.0	2226	16.5	72	usa	
327	36.4	5	121.0	67.0	2950	19.9	80	europe	
23	26.0	4	121.0	113.0	2234	12.5	70	europe	
296	27.4	4	121.0	80.0	2670	15.0	79	usa	a
76	18.0	4	121.0	112.0	2933	14.5	72	europe	
276	21.6	4	121.0	115.0	2795	15.7	78	europe	
179	22.0	4	121.0	98.0	2945	14.5	75	europe	
180	25.0	4	121.0	115.0	2671	13.5	75	europe	
122	24.0	4	121.0	110.0	2660	14.0	73	europe	
77	22.0	4	121.0	76.0	2511	18.0	72	europe	'
120	19.0	4	121.0	112.0	2868	15.5	73	europe	\
242	21.5	4	121.0	110.0	2600	12.8	77	europe	
178	23.0	4	120.0	88.0	2957	17.0	75	europe	p
78	21.0	4	120.0	87.0	2979	19.5	72	europe	p
358	31.6	4	120.0	74.0	2635	18.3	81	japan	
319	31.3	4	120.0	75.0	2542	17.5	80	japan	
82	23.0	4	120.0	97.0	2506	14.5	72	japan	c
149	24.0	4	120.0	97.0	2489	15.0	74	japan	
209	19.0	4	120.0	88.0	3270	21.9	76	europe	p
396	28.0	4	120.0	79.0	2625	18.6	82	usa	
380	36.0	4	120.0	88.0	2160	14.5	82	japan	
320	37.0	4	119.0	92.0	2434	15.0	80	japan	
273	23.9	4	119.0	97.0	2405	14.9	78	japan	(
268	27.2	4	119.0	97.0	2300	14.7	78	japan	
357	32.9	4	119.0	100.0	2615	14.8	81	japan	
397	31.0	4	119.0	82.0	2720	19.4	82	usa	
173	24.0	4	119.0	97.0	2545	17.0	75	japan	
118	24.0	4	116.0	75.0	2158	15.5	73	europe	
50	28.0	4	116.0	90.0	2123	14.0	71	europe	
183	25.0	4	116.0	81.0	2220	16.9	76	europe	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
148	26.0	4	116.0	75.0	2246	14.0	74	europe	
177	23.0	4	115.0	95.0	2694	15.0	75	europe	
119	20.0	4	114.0	91.0	2582	14.0	73	europe	
31	25.0	4	113.0	95.0	2228	14.0	71	japan	
57	24.0	4	113.0	95.0	2278	15.5	72	japan	
14	24.0	4	113.0	95.0	2372	15.0	70	japan	c
367	28.0	4	112.0	88.0	2605	19.6	82	usa	
368	27.0	4	112.0	88.0	2640	18.6	82	usa	
369	34.0	4	112.0	88.0	2395	18.0	82	usa	
370	31.0	4	112.0	85.0	2575	16.2	82	usa	
217	30.0	4	111.0	80.0	2155	14.8	77	usa	is
20	25.0	4	110.0	87.0	2672	17.5	70	europe	p
356	32.4	4	108.0	75.0	2350	16.8	81	japan	
150	26.0	4	108.0	93.0	2391	15.5	74	japan	
110	22.0	4	108.0	94.0	2379	16.5	73	japan	
382	34.0	4	108.0	70.0	2245	16.9	82	japan	
321	32.2	4	108.0	75.0	2265	15.2	80	japan	
381	36.0	4	107.0	75.0	2205	14.5	82	japan	
337	32.4	4	107.0	72.0	2290	17.0	80	japan	
182	28.0	4	107.0	86.0	2464	15.5	76	europe	
355	33.7	4	107.0	75.0	2210	14.4	81	japan	
21	24.0	4	107.0	90.0	2430	14.5	70	europe	
302	34.5	4	105.0	70.0	2150	14.9	79	usa	
353	33.0	4	105.0	74.0	2190	14.2	81	europe	'
378	38.0	4	105.0	63.0	2125	14.7	82	usa	
375	36.0	4	105.0	74.0	1980	15.3	82	europe	'

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
301	34.2	4	105.0	70.0	2200	13.2	79	usa
269	30.9	4	105.0	75.0	2230	14.5	78	usa
350	34.7	4	105.0	63.0	2215	14.9	81	usa
22	25.0	4	104.0	95.0	2375	17.5	70	europe
186	27.0	4	101.0	83.0	2202	15.3	76	europe
354	34.5	4	100.0	NaN	2320	15.8	81	europe
351	34.4	4	98.0	65.0	2045	16.2	81	usa
185	26.0	4	98.0	79.0	2255	17.7	76	usa
32	25.0	4	98.0	NaN	2046	19.0	71	usa
352	29.9	4	98.0	65.0	2380	20.7	81	usa
279	29.5	4	98.0	68.0	2135	16.6	78	japan
266	30.0	4	98.0	68.0	2155	16.5	78	usa
237	30.5	4	98.0	63.0	2051	17.0	77	usa
238	33.5	4	98.0	83.0	2075	15.9	77	usa
141	29.0	4	98.0	83.0	2219	16.5	74	europe
379	36.0	4	98.0	70.0	2125	17.3	82	usa
196	24.5	4	98.0	60.0	2164	22.1	76	usa
245	36.1	4	98.0	66.0	1800	14.4	78	usa
83	28.0	4	98.0	80.0	2164	15.0	72	usa
114	26.0	4	98.0	90.0	2265	15.5	73	europe
311	32.1	4	98.0	70.0	2120	15.5	80	usa
295	35.7	4	98.0	80.0	1915	14.4	79	usa
309	41.5	4	98.0	76.0	2144	14.7	80	europe
216	31.5	4	98.0	68.0	2045	18.5	77	japan
58	25.0	4	97.5	80.0	2126	17.0	72	usa
102	26.0	4	97.0	46.0	1950	21.0	73	europe
55	27.0	4	97.0	60.0	1834	19.0	71	europe
18	27.0	4	97.0	88.0	2130	14.5	70	japan

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
167	29.0	4	97.0	75.0	2171	16.0	75	japan	
235	26.0	4	97.0	75.0	2265	18.2	77	japan	
346	32.3	4	97.0	67.0	2065	17.8	81	japan	
84	27.0	4	97.0	88.0	2100	16.5	72	japan	c
394	44.0	4	97.0	52.0	2130	24.6	82	europe	
233	29.0	4	97.0	78.0	1940	14.5	77	europe	'
59	23.0	4	97.0	54.0	2254	23.5	72	europe	'
203	29.5	4	97.0	71.0	1825	12.2	76	europe	'
331	33.8	4	97.0	67.0	2145	18.0	80	japan	
205	28.0	4	97.0	75.0	2155	16.4	76	japan	
19	26.0	4	97.0	46.0	1835	20.5	70	europe	' 1
108	20.0	4	97.0	88.0	2279	19.0	73	japan	
29	27.0	4	97.0	88.0	2130	14.5	71	japan	
239	30.0	4	97.0	67.0	1985	16.4	77	japan	
240	30.5	4	97.0	78.0	2190	14.1	77	europe	'
317	34.3	4	97.0	78.0	2188	15.8	80	europe	
143	26.0	4	97.0	78.0	2300	14.5	74	europe	
81	28.0	4	97.0	92.0	2288	17.0	72	japan	
79	26.0	4	96.0	69.0	2189	18.0	72	europe	
385	38.0	4	91.0	67.0	1995	16.2	82	japan	
248	36.1	4	91.0	60.0	1800	16.4	78	japan	
56	26.0	4	91.0	70.0	1955	20.5	71	usa	
384	32.0	4	91.0	67.0	1965	15.7	82	japan	
383	38.0	4	91.0	67.0	1965	15.0	82	japan	
377	31.0	4	91.0	68.0	1970	17.6	82	japan	
376	37.0	4	91.0	68.0	2025	18.2	82	japan	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
304	37.3	4	91.0	69.0	2130	14.7	79	europe	
181	33.0	4	91.0	53.0	1795	17.5	75	japan	
349	34.1	4	91.0	68.0	1985	16.0	81	japan	r
198	33.0	4	91.0	53.0	1795	17.4	76	japan	
329	44.6	4	91.0	67.0	1850	13.8	80	japan	
175	29.0	4	90.0	70.0	1937	14.0	75	europe	'
147	24.0	4	90.0	75.0	2108	15.5	74	europe	
146	28.0	4	90.0	75.0	2125	14.5	74	usa	
197	29.0	4	90.0	70.0	1937	14.2	76	europe	
325	44.3	4	90.0	48.0	2085	21.7	80	europe	
326	43.4	4	90.0	48.0	2335	23.7	80	europe	
172	25.0	4	90.0	71.0	2223	16.5	75	europe	'
244	43.1	4	90.0	48.0	1985	21.5	78	europe	'
332	29.8	4	89.0	62.0	1845	15.3	80	europe	
348	37.7	4	89.0	62.0	2050	17.3	81	japan	t
310	38.1	4	89.0	60.0	1968	18.8	80	japan	
293	31.9	4	89.0	71.0	1925	14.0	79	europe	
278	31.5	4	89.0	71.0	1990	14.9	78	europe	'
52	30.0	4	88.0	76.0	2065	14.5	71	europe	
322	46.6	4	86.0	65.0	2110	17.9	80	japan	
312	37.2	4	86.0	65.0	2019	16.4	80	japan	
294	34.1	4	86.0	65.0	1975	15.2	79	japan	
344	39.0	4	86.0	64.0	1875	16.4	81	usa	
324	40.8	4	85.0	65.0	2110	19.2	80	japan	
220	33.5	4	85.0	70.0	1945	16.8	77	japan	
195	29.0	4	85.0	52.0	2035	22.2	76	usa	
204	32.0	4	85.0	70.0	1990	17.0	76	japan	
303	31.8	4	85.0	65.0	2020	19.2	79	japan	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
247	39.4	4	85.0	70.0	2070	18.6	78	japan	d
347	37.0	4	85.0	65.0	1975	19.4	81	japan	
330	40.9	4	85.0	NaN	1835	17.3	80	europe	r
145	32.0	4	83.0	61.0	2003	19.0	74	japan	
345	35.1	4	81.0	60.0	1760	16.1	81	japan	
243	21.5	3	80.0	110.0	2720	13.5	77	japan	
151	31.0	4	79.0	67.0	2000	16.0	74	europe	
343	39.1	4	79.0	58.0	1755	16.9	81	japan	
218	36.0	4	79.0	58.0	1825	18.6	77	europe	r
142	26.0	4	79.0	67.0	1963	15.5	74	europe	v
129	31.0	4	79.0	67.0	1950	19.0	74	japan	d
51	30.0	4	79.0	70.0	2074	19.5	71	europe	p
246	32.8	4	78.0	52.0	1985	19.4	78	japan	
144	31.0	4	76.0	52.0	1649	16.5	74	japan	
54	35.0	4	72.0	69.0	1613	18.0	71	japan	d
53	31.0	4	71.0	65.0	1773	19.0	71	japan	c
131	32.0	4	71.0	65.0	1836	21.0	74	japan	c
111	18.0	3	70.0	90.0	2124	13.5	73	japan	
71	19.0	3	70.0	97.0	2330	13.5	72	japan	
334	23.7	3	70.0	100.0	2420	12.5	80	japan	
117	29.0	4	68.0	49.0	1867	19.5	73	europe	

In [ ]:

```
car.sort_values(['displacement','weight'],ascending = False)
```

Out[ ]:

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
95	12.0	8	455.0	225.0	4951	11.0	73	usa
8	14.0	8	455.0	225.0	4425	10.0	70	usa
13	14.0	8	455.0	225.0	3086	10.0	70	usa
6	14.0	8	454.0	220.0	4354	9.0	70	usa
94	13.0	8	440.0	215.0	4735	11.0	73	usa
7	14.0	8	440.0	215.0	4312	8.5	70	usa
90	12.0	8	429.0	198.0	4952	11.5	73	usa
67	11.0	8	429.0	208.0	4633	11.0	72	usa
5	15.0	8	429.0	198.0	4341	10.0	70	usa
44	13.0	8	400.0	175.0	5140	12.0	71	usa
103	11.0	8	400.0	150.0	4997	14.0	73	usa
104	12.0	8	400.0	167.0	4906	12.5	73	usa
43	13.0	8	400.0	170.0	4746	12.0	71	usa
156	16.0	8	400.0	170.0	4668	11.5	75	usa
39	14.0	8	400.0	175.0	4464	11.5	71	usa
91	13.0	8	400.0	150.0	4464	12.0	73	usa
70	13.0	8	400.0	190.0	4422	12.5	72	usa
63	14.0	8	400.0	175.0	4385	12.0	72	usa
231	15.5	8	400.0	190.0	4325	12.2	77	usa
116	16.0	8	400.0	230.0	4278	9.5	73	usa
229	16.0	8	400.0	180.0	4220	11.1	77	usa
12	15.0	8	400.0	150.0	3761	9.5	70	usa

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
9	15.0	8	390.0	190.0	3850	8.5	70	usa	a
42	12.0	8	383.0	180.0	4955	11.5	71	usa	
10	15.0	8	383.0	170.0	3563	10.0	70	usa	
105	13.0	8	360.0	170.0	4654	13.0	73	usa	
25	10.0	8	360.0	215.0	4615	14.0	70	usa	
292	18.5	8	360.0	150.0	3940	13.0	79	usa	c
96	13.0	8	360.0	175.0	3821	11.0	73	usa	a
159	14.0	8	351.0	148.0	4657	13.5	75	usa	
92	13.0	8	351.0	158.0	4363	13.0	73	usa	
232	16.0	8	351.0	149.0	4335	14.5	77	usa	
190	14.5	8	351.0	152.0	4215	12.8	76	usa	
40	14.0	8	351.0	153.0	4154	13.5	71	usa	
65	14.0	8	351.0	153.0	4129	13.0	72	usa	
290	15.5	8	351.0	142.0	4054	14.3	79	usa	f
287	16.5	8	351.0	138.0	3955	13.2	79	usa	
137	13.0	8	350.0	150.0	4699	14.5	74	usa	
68	13.0	8	350.0	155.0	4502	13.5	72	usa	
106	12.0	8	350.0	180.0	4499	12.5	73	usa	\
69	12.0	8	350.0	160.0	4456	13.5	72	usa	
157	15.0	8	350.0	145.0	4440	14.0	75	usa	
212	16.5	8	350.0	180.0	4380	12.1	76	usa	
289	16.9	8	350.0	155.0	4360	14.9	79	usa	b

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
62	13.0	8	350.0	165.0	4274	12.0	72	usa
38	14.0	8	350.0	165.0	4209	12.0	71	usa
230	15.5	8	350.0	170.0	4165	11.4	77	usa
85	13.0	8	350.0	175.0	4100	13.0	73	usa
115	15.0	8	350.0	145.0	4082	13.0	73	usa
213	13.0	8	350.0	145.0	4055	12.0	76	usa
87	13.0	8	350.0	145.0	3988	13.0	73	usa
298	23.0	8	350.0	125.0	3900	17.4	79	usa
364	26.6	8	350.0	105.0	3725	19.0	81	usa
1	15.0	8	350.0	165.0	3693	11.5	70	usa
124	11.0	8	350.0	180.0	3664	11.0	73	usa
11	14.0	8	340.0	160.0	3609	8.0	70	usa
158	16.0	8	318.0	150.0	4498	14.5	75	usa
138	14.0	8	318.0	150.0	4457	13.5	74	usa
27	11.0	8	318.0	210.0	4382	13.5	70	usa
93	14.0	8	318.0	150.0	4237	14.5	73	usa
188	16.0	8	318.0	150.0	4190	13.0	76	usa
223	15.5	8	318.0	145.0	4140	13.7	77	usa
64	15.0	8	318.0	150.0	4135	13.5	72	usa
41	14.0	8	318.0	150.0	4096	13.0	71	usa
265	17.5	8	318.0	140.0	4080	13.7	78	usa
75	14.0	8	318.0	150.0	4077	14.0	72	usa
208	13.0	8	318.0	150.0	3940	13.2	76	usa

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
288	18.2	8	318.0	135.0	3830	15.2	79	usa	
89	15.0	8	318.0	150.0	3777	12.5	73	usa	
215	13.0	8	318.0	150.0	3755	14.0	76	usa	d
250	19.4	8	318.0	140.0	3735	13.2	78	usa	
2	18.0	8	318.0	150.0	3436	11.0	70	usa	
121	15.0	8	318.0	150.0	3399	11.0	73	usa	
26	10.0	8	307.0	200.0	4376	15.0	70	usa	
73	13.0	8	307.0	130.0	4098	14.0	72	usa	
0	18.0	8	307.0	130.0	3504	12.0	70	usa	
187	17.5	8	305.0	140.0	4215	13.0	76	usa	
221	17.5	8	305.0	145.0	3880	12.5	77	usa	
285	17.0	8	305.0	130.0	3840	15.4	79	usa	
262	19.2	8	305.0	145.0	3425	13.2	78	usa	l
28	9.0	8	304.0	193.0	4732	18.5	70	usa	
140	14.0	8	304.0	150.0	4257	15.5	74	usa	
189	15.5	8	304.0	120.0	3962	13.9	76	usa	
72	15.0	8	304.0	150.0	3892	12.5	72	usa	
66	17.0	8	304.0	150.0	3672	11.5	72	usa	a
86	14.0	8	304.0	150.0	3672	11.5	73	usa	
3	16.0	8	304.0	150.0	3433	12.0	70	usa	
139	14.0	8	302.0	140.0	4638	16.0	74	usa	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
224	15.0	8	302.0	130.0	4295	14.9	77	usa	
74	13.0	8	302.0	140.0	4294	16.0	72	usa	
136	16.0	8	302.0	140.0	4141	14.0	74	usa	
88	14.0	8	302.0	137.0	4042	14.5	73	usa	
214	13.0	8	302.0	130.0	3870	15.0	76	usa	
286	17.6	8	302.0	129.0	3725	13.4	79	usa	
251	20.2	8	302.0	139.0	3570	12.8	78	usa	
4	17.0	8	302.0	140.0	3449	10.5	70	usa	
264	18.1	8	302.0	139.0	3205	11.2	78	usa	
166	13.0	8	302.0	129.0	3169	12.0	75	usa	
291	19.2	8	267.0	125.0	3605	15.0	79	usa	
165	20.0	8	262.0	110.0	3221	13.5	75	usa	
387	38.0	6	262.0	85.0	3015	17.0	82	usa	c
222	17.0	8	260.0	110.0	4060	19.0	77	usa	
300	23.9	8	260.0	90.0	3420	22.2	79	usa	
249	19.9	8	260.0	110.0	3365	15.5	78	usa	
162	15.0	6	258.0	110.0	3730	19.0	75	usa	
134	16.0	6	258.0	110.0	3632	18.0	74	usa	
261	18.1	6	258.0	120.0	3410	15.1	78	usa	
202	17.5	6	258.0	95.0	3193	17.8	76	usa	
45	18.0	6	258.0	110.0	2962	13.5	71	usa	
161	16.0	6	250.0	105.0	3897	18.5	75	usa	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
133	16.0	6	250.0	100.0	3781	17.0	74	usa
201	18.5	6	250.0	110.0	3645	16.2	76	usa
200	18.0	6	250.0	78.0	3574	21.0	76	usa
228	18.5	6	250.0	98.0	3525	19.0	77	usa
225	17.5	6	250.0	110.0	3520	16.4	77	usa
153	18.0	6	250.0	105.0	3459	16.0	75	usa
154	15.0	6	250.0	72.0	3432	21.0	75	usa
192	22.0	6	250.0	105.0	3353	14.5	76	usa
128	15.0	6	250.0	100.0	3336	17.0	74	usa
35	17.0	6	250.0	100.0	3329	15.5	71	usa
36	19.0	6	250.0	88.0	3302	15.5	71	usa
47	19.0	6	250.0	100.0	3282	15.0	71	usa
98	16.0	6	250.0	100.0	3278	18.0	73	usa
155	15.0	6	250.0	72.0	3158	19.5	75	usa
48	18.0	6	250.0	88.0	3139	14.5	71	usa
100	18.0	6	250.0	88.0	3021	16.5	73	usa
37	18.0	6	232.0	100.0	3288	15.5	71	usa
283	20.2	6	232.0	90.0	3265	18.2	79	usa
176	19.0	6	232.0	90.0	3211	17.0	75	usa
257	19.4	6	232.0	90.0	3210	17.2	78	usa
194	22.5	6	232.0	90.0	3085	17.6	76	usa
99	18.0	6	232.0	100.0	2945	16.0	73	usa
169	20.0	6	232.0	100.0	2914	16.0	75	usa
127	19.0	6	232.0	100.0	2901	16.0	74	usa
389	22.0	6	232.0	112.0	2835	14.7	82	usa

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
107	18.0	6	232.0	100.0	2789	15.0	73	usa	a
33	19.0	6	232.0	100.0	2634	13.0	71	usa	a
160	17.0	6	231.0	110.0	3907	21.0	75	usa	
252	19.2	6	231.0	105.0	3535	19.2	78	usa	
263	17.7	6	231.0	165.0	3445	13.4	78	usa	s
226	20.5	6	231.0	105.0	3425	16.9	77	usa	
363	22.4	6	231.0	110.0	3415	15.8	81	usa	
258	20.6	6	231.0	105.0	3380	15.8	78	usa	
280	21.5	6	231.0	115.0	3245	15.4	79	usa	
164	21.0	6	231.0	110.0	3039	15.0	75	usa	
163	18.0	6	225.0	95.0	3785	19.0	75	usa	
199	20.0	6	225.0	100.0	3651	17.7	76	usa	
227	19.0	6	225.0	100.0	3630	17.7	77	usa	
260	18.6	6	225.0	110.0	3620	18.7	78	usa	
135	18.0	6	225.0	105.0	3613	16.5	74	usa	
366	17.6	6	225.0	85.0	3465	16.6	81	usa	
34	16.0	6	225.0	105.0	3439	15.5	71	usa	
256	20.5	6	225.0	100.0	3430	17.2	78	usa	
316	19.1	6	225.0	90.0	3381	18.7	80	usa	
284	20.6	6	225.0	110.0	3360	16.6	79	usa	
152	19.0	6	225.0	95.0	3264	16.0	75	usa	
191	22.0	6	225.0	100.0	3233	15.4	76	usa	
97	18.0	6	225.0	105.0	3121	16.5	73	usa	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
253	20.5	6	200.0	95.0	3155	18.2	78	usa
259	20.8	6	200.0	85.0	3070	16.7	78	usa
365	20.2	6	200.0	88.0	3060	17.1	81	usa
193	24.0	6	200.0	81.0	3012	17.6	76	usa
281	19.8	6	200.0	85.0	2990	18.2	79	usa
254	20.2	6	200.0	85.0	2965	15.8	78	usa
126	21.0	6	200.0	NaN	2875	17.0	74	usa
17	21.0	6	200.0	85.0	2587	16.0	70	usa
16	18.0	6	199.0	97.0	2774	15.5	70	usa
24	21.0	6	199.0	90.0	2648	15.0	70	usa
125	20.0	6	198.0	95.0	3102	16.5	74	usa
101	23.0	6	198.0	95.0	2904	16.0	73	usa
15	22.0	6	198.0	95.0	2833	15.5	70	usa
297	25.4	5	183.0	77.0	3530	20.1	79	europe
386	25.0	6	181.0	110.0	2945	16.4	82	usa
341	23.5	6	173.0	110.0	2725	12.6	81	usa
307	26.8	6	173.0	115.0	2700	12.9	79	usa
306	28.8	6	173.0	115.0	2595	11.3	79	usa
174	18.0	6	171.0	97.0	2984	14.5	75	usa
211	16.5	6	168.0	120.0	3820	16.7	76	europe
333	32.7	6	168.0	132.0	2910	11.4	80	japan
361	25.4	6	168.0	116.0	2900	12.6	81	japan
277	16.2	6	163.0	133.0	3410	15.8	78	europe
275	17.0	6	163.0	125.0	3140	13.6	78	europe
210	19.0	6	156.0	108.0	2930	15.5	76	japan

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
123	20.0	6	156.0	122.0	2807	13.5	73	japan	f
323	27.9	4	156.0	105.0	2800	14.4	80	usa	
271	23.2	4	156.0	105.0	2745	16.7	78	usa	
340	25.8	4	156.0	92.0	2620	14.4	81	usa	c
388	26.0	4	156.0	92.0	2585	14.5	82	usa	
113	21.0	6	155.0	107.0	2472	14.0	73	usa	
374	23.0	4	151.0	NaN	3035	20.5	82	usa	
315	24.3	4	151.0	90.0	3003	20.1	80	usa	
392	27.0	4	151.0	90.0	2950	17.3	82	usa	
272	23.8	4	151.0	85.0	2855	17.6	78	usa	
234	24.5	4	151.0	88.0	2740	16.0	77	usa	
372	27.0	4	151.0	90.0	2735	18.0	82	usa	
313	28.0	4	151.0	90.0	2678	16.5	80	usa	
305	28.4	4	151.0	90.0	2670	16.0	79	usa	
339	26.6	4	151.0	84.0	2635	16.4	81	usa	
308	33.5	4	151.0	90.0	2556	13.2	79	usa	
328	30.0	4	146.0	67.0	3250	21.8	80	europe	
362	24.2	6	146.0	120.0	2930	13.8	81	japan	
241	22.0	6	146.0	97.0	2815	14.5	77	japan	
360	30.7	6	145.0	76.0	3160	19.6	81	europe	v
390	32.0	4	144.0	96.0	2665	13.9	82	japan	to
359	28.1	4	141.0	80.0	3230	20.4	81	europe	
299	27.2	4	141.0	71.0	3190	24.8	79	europe	p
336	23.6	4	140.0	NaN	2905	14.3	80	usa	
282	22.3	4	140.0	88.0	2890	17.3	79	usa	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
314	26.4	4	140.0	88.0	2870	18.1	80	usa
373	24.0	4	140.0	92.0	2865	16.4	82	usa
393	27.0	4	140.0	86.0	2790	15.6	82	usa
236	25.5	4	140.0	89.0	2755	15.8	77	usa
255	25.1	4	140.0	88.0	2720	15.4	78	usa
168	23.0	4	140.0	83.0	2639	17.0	75	usa
170	23.0	4	140.0	78.0	2592	18.5	75	usa
184	25.0	4	140.0	92.0	2572	14.9	76	usa
206	26.5	4	140.0	72.0	2565	13.6	76	usa
132	25.0	4	140.0	75.0	2542	17.0	74	usa
46	22.0	4	140.0	72.0	2408	19.0	71	usa
60	20.0	4	140.0	90.0	2408	19.5	72	usa
109	21.0	4	140.0	72.0	2401	19.5	73	usa
30	28.0	4	140.0	90.0	2264	15.5	71	usa
371	29.0	4	135.0	84.0	2525	16.0	82	usa
338	27.2	4	135.0	84.0	2490	15.7	81	usa
342	30.0	4	135.0	84.0	2385	12.9	81	usa
391	36.0	4	135.0	84.0	2370	13.0	82	usa
395	32.0	4	135.0	84.0	2295	11.6	82	usa
318	29.8	4	134.0	90.0	2711	15.5	80	japan
171	24.0	4	134.0	96.0	2702	13.5	75	japan
267	27.5	4	134.0	95.0	2560	14.2	78	japan
270	21.1	4	134.0	95.0	2515	14.8	78	japan
274	20.3	5	131.0	103.0	2830	15.9	78	europe
207	20.0	4	130.0	102.0	3150	15.7	76	europe

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
335	35.0	4	122.0	88.0	2500	15.1	80	europe	
130	26.0	4	122.0	80.0	2451	16.5	74	usa	
80	22.0	4	122.0	86.0	2395	16.0	72	usa	
112	19.0	4	122.0	85.0	2310	18.5	73	usa	
219	25.5	4	122.0	96.0	2300	15.5	77	usa	
61	21.0	4	122.0	86.0	2226	16.5	72	usa	
49	23.0	4	122.0	86.0	2220	14.0	71	usa	
327	36.4	5	121.0	67.0	2950	19.9	80	europe	
179	22.0	4	121.0	98.0	2945	14.5	75	europe	
76	18.0	4	121.0	112.0	2933	14.5	72	europe	
120	19.0	4	121.0	112.0	2868	15.5	73	europe	v
276	21.6	4	121.0	115.0	2795	15.7	78	europe	
180	25.0	4	121.0	115.0	2671	13.5	75	europe	
296	27.4	4	121.0	80.0	2670	15.0	79	usa	a
122	24.0	4	121.0	110.0	2660	14.0	73	europe	
242	21.5	4	121.0	110.0	2600	12.8	77	europe	
77	22.0	4	121.0	76.0	2511	18.0	72	europe	'
23	26.0	4	121.0	113.0	2234	12.5	70	europe	
209	19.0	4	120.0	88.0	3270	21.9	76	europe	p
78	21.0	4	120.0	87.0	2979	19.5	72	europe	p
178	23.0	4	120.0	88.0	2957	17.0	75	europe	p
358	31.6	4	120.0	74.0	2635	18.3	81	japan	
396	28.0	4	120.0	79.0	2625	18.6	82	usa	
319	31.3	4	120.0	75.0	2542	17.5	80	japan	
82	23.0	4	120.0	97.0	2506	14.5	72	japan	c
149	24.0	4	120.0	97.0	2489	15.0	74	japan	
380	36.0	4	120.0	88.0	2160	14.5	82	japan	
397	31.0	4	119.0	82.0	2720	19.4	82	usa	
357	32.9	4	119.0	100.0	2615	14.8	81	japan	
173	24.0	4	119.0	97.0	2545	17.0	75	japan	
320	37.0	4	119.0	92.0	2434	15.0	80	japan	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
273	23.9	4	119.0	97.0	2405	14.9	78	japan	
268	27.2	4	119.0	97.0	2300	14.7	78	japan	
148	26.0	4	116.0	75.0	2246	14.0	74	europe	
183	25.0	4	116.0	81.0	2220	16.9	76	europe	
118	24.0	4	116.0	75.0	2158	15.5	73	europe	
50	28.0	4	116.0	90.0	2123	14.0	71	europe	
177	23.0	4	115.0	95.0	2694	15.0	75	europe	
119	20.0	4	114.0	91.0	2582	14.0	73	europe	
14	24.0	4	113.0	95.0	2372	15.0	70	japan	c
57	24.0	4	113.0	95.0	2278	15.5	72	japan	
31	25.0	4	113.0	95.0	2228	14.0	71	japan	
368	27.0	4	112.0	88.0	2640	18.6	82	usa	
367	28.0	4	112.0	88.0	2605	19.6	82	usa	
370	31.0	4	112.0	85.0	2575	16.2	82	usa	
369	34.0	4	112.0	88.0	2395	18.0	82	usa	
217	30.0	4	111.0	80.0	2155	14.8	77	usa	is
20	25.0	4	110.0	87.0	2672	17.5	70	europe	p
150	26.0	4	108.0	93.0	2391	15.5	74	japan	
110	22.0	4	108.0	94.0	2379	16.5	73	japan	
356	32.4	4	108.0	75.0	2350	16.8	81	japan	
321	32.2	4	108.0	75.0	2265	15.2	80	japan	
382	34.0	4	108.0	70.0	2245	16.9	82	japan	
182	28.0	4	107.0	86.0	2464	15.5	76	europe	
21	24.0	4	107.0	90.0	2430	14.5	70	europe	
337	32.4	4	107.0	72.0	2290	17.0	80	japan	
355	33.7	4	107.0	75.0	2210	14.4	81	japan	
381	36.0	4	107.0	75.0	2205	14.5	82	japan	
269	30.9	4	105.0	75.0	2230	14.5	78	usa	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin
350	34.7	4	105.0	63.0	2215	14.9	81	usa
301	34.2	4	105.0	70.0	2200	13.2	79	usa
353	33.0	4	105.0	74.0	2190	14.2	81	europe
302	34.5	4	105.0	70.0	2150	14.9	79	usa
378	38.0	4	105.0	63.0	2125	14.7	82	usa
375	36.0	4	105.0	74.0	1980	15.3	82	europe
22	25.0	4	104.0	95.0	2375	17.5	70	europe
186	27.0	4	101.0	83.0	2202	15.3	76	europe
354	34.5	4	100.0	NaN	2320	15.8	81	europe
352	29.9	4	98.0	65.0	2380	20.7	81	usa
114	26.0	4	98.0	90.0	2265	15.5	73	europe
185	26.0	4	98.0	79.0	2255	17.7	76	usa
141	29.0	4	98.0	83.0	2219	16.5	74	europe
83	28.0	4	98.0	80.0	2164	15.0	72	usa
196	24.5	4	98.0	60.0	2164	22.1	76	usa
266	30.0	4	98.0	68.0	2155	16.5	78	usa
309	41.5	4	98.0	76.0	2144	14.7	80	europe
279	29.5	4	98.0	68.0	2135	16.6	78	japan
379	36.0	4	98.0	70.0	2125	17.3	82	usa
311	32.1	4	98.0	70.0	2120	15.5	80	usa
238	33.5	4	98.0	83.0	2075	15.9	77	usa
237	30.5	4	98.0	63.0	2051	17.0	77	usa
32	25.0	4	98.0	NaN	2046	19.0	71	usa
216	31.5	4	98.0	68.0	2045	18.5	77	japan
351	34.4	4	98.0	65.0	2045	16.2	81	usa
295	35.7	4	98.0	80.0	1915	14.4	79	usa
245	36.1	4	98.0	66.0	1800	14.4	78	usa

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
58	25.0	4	97.5	80.0	2126	17.0	72	usa	
143	26.0	4	97.0	78.0	2300	14.5	74	europe	
81	28.0	4	97.0	92.0	2288	17.0	72	japan	
108	20.0	4	97.0	88.0	2279	19.0	73	japan	
235	26.0	4	97.0	75.0	2265	18.2	77	japan	
59	23.0	4	97.0	54.0	2254	23.5	72	europe	'
240	30.5	4	97.0	78.0	2190	14.1	77	europe	'
317	34.3	4	97.0	78.0	2188	15.8	80	europe	
167	29.0	4	97.0	75.0	2171	16.0	75	japan	
205	28.0	4	97.0	75.0	2155	16.4	76	japan	
331	33.8	4	97.0	67.0	2145	18.0	80	japan	
18	27.0	4	97.0	88.0	2130	14.5	70	japan	
29	27.0	4	97.0	88.0	2130	14.5	71	japan	
394	44.0	4	97.0	52.0	2130	24.6	82	europe	
84	27.0	4	97.0	88.0	2100	16.5	72	japan	c
346	32.3	4	97.0	67.0	2065	17.8	81	japan	
239	30.0	4	97.0	67.0	1985	16.4	77	japan	
102	26.0	4	97.0	46.0	1950	21.0	73	europe	' s
233	29.0	4	97.0	78.0	1940	14.5	77	europe	'
19	26.0	4	97.0	46.0	1835	20.5	70	europe	' 1
55	27.0	4	97.0	60.0	1834	19.0	71	europe	'
203	29.5	4	97.0	71.0	1825	12.2	76	europe	'
79	26.0	4	96.0	69.0	2189	18.0	72	europe	
304	37.3	4	91.0	69.0	2130	14.7	79	europe	
376	37.0	4	91.0	68.0	2025	18.2	82	japan	
385	38.0	4	91.0	67.0	1995	16.2	82	japan	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
349	34.1	4	91.0	68.0	1985	16.0	81	japan	r
377	31.0	4	91.0	68.0	1970	17.6	82	japan	
383	38.0	4	91.0	67.0	1965	15.0	82	japan	
384	32.0	4	91.0	67.0	1965	15.7	82	japan	
56	26.0	4	91.0	70.0	1955	20.5	71	usa	
329	44.6	4	91.0	67.0	1850	13.8	80	japan	
248	36.1	4	91.0	60.0	1800	16.4	78	japan	
181	33.0	4	91.0	53.0	1795	17.5	75	japan	
198	33.0	4	91.0	53.0	1795	17.4	76	japan	
326	43.4	4	90.0	48.0	2335	23.7	80	europe	
172	25.0	4	90.0	71.0	2223	16.5	75	europe	'
146	28.0	4	90.0	75.0	2125	14.5	74	usa	
147	24.0	4	90.0	75.0	2108	15.5	74	europe	
325	44.3	4	90.0	48.0	2085	21.7	80	europe	
244	43.1	4	90.0	48.0	1985	21.5	78	europe	'
175	29.0	4	90.0	70.0	1937	14.0	75	europe	'
197	29.0	4	90.0	70.0	1937	14.2	76	europe	
348	37.7	4	89.0	62.0	2050	17.3	81	japan	t
278	31.5	4	89.0	71.0	1990	14.9	78	europe	'
310	38.1	4	89.0	60.0	1968	18.8	80	japan	
293	31.9	4	89.0	71.0	1925	14.0	79	europe	
332	29.8	4	89.0	62.0	1845	15.3	80	europe	
52	30.0	4	88.0	76.0	2065	14.5	71	europe	
322	46.6	4	86.0	65.0	2110	17.9	80	japan	
312	37.2	4	86.0	65.0	2019	16.4	80	japan	
294	34.1	4	86.0	65.0	1975	15.2	79	japan	
344	39.0	4	86.0	64.0	1875	16.4	81	usa	
324	40.8	4	85.0	65.0	2110	19.2	80	japan	

	mpg	cylinders	displacement	horsepower	weight	acceleration	model_year	origin	
247	39.4	4	85.0	70.0	2070	18.6	78	japan	d
195	29.0	4	85.0	52.0	2035	22.2	76	usa	
303	31.8	4	85.0	65.0	2020	19.2	79	japan	
204	32.0	4	85.0	70.0	1990	17.0	76	japan	
347	37.0	4	85.0	65.0	1975	19.4	81	japan	
220	33.5	4	85.0	70.0	1945	16.8	77	japan	
330	40.9	4	85.0	NaN	1835	17.3	80	europe	r
145	32.0	4	83.0	61.0	2003	19.0	74	japan	
345	35.1	4	81.0	60.0	1760	16.1	81	japan	
243	21.5	3	80.0	110.0	2720	13.5	77	japan	
51	30.0	4	79.0	70.0	2074	19.5	71	europe	p
151	31.0	4	79.0	67.0	2000	16.0	74	europe	
142	26.0	4	79.0	67.0	1963	15.5	74	europe	v
129	31.0	4	79.0	67.0	1950	19.0	74	japan	d
218	36.0	4	79.0	58.0	1825	18.6	77	europe	r
343	39.1	4	79.0	58.0	1755	16.9	81	japan	
246	32.8	4	78.0	52.0	1985	19.4	78	japan	
144	31.0	4	76.0	52.0	1649	16.5	74	japan	
54	35.0	4	72.0	69.0	1613	18.0	71	japan	d
131	32.0	4	71.0	65.0	1836	21.0	74	japan	c
53	31.0	4	71.0	65.0	1773	19.0	71	japan	c
334	23.7	3	70.0	100.0	2420	12.5	80	japan	
71	19.0	3	70.0	97.0	2330	13.5	72	japan	
111	18.0	3	70.0	90.0	2124	13.5	73	japan	
117	29.0	4	68.0	49.0	1867	19.5	73	europe	

In [ ]:

```
car.describe(include='all')
```

Out[ ]:

	mpg	cylinders	displacement	horsepower	weight	acceleration	model
count	398.000000	398.000000	398.000000	392.000000	398.000000	398.000000	398.0
unique	NaN	NaN	NaN	NaN	NaN	NaN	
top	NaN	NaN	NaN	NaN	NaN	NaN	
freq	NaN	NaN	NaN	NaN	NaN	NaN	
mean	23.514573	5.454774	193.425879	104.469388	2970.424623	15.568090	76.0
std	7.815984	1.701004	104.269838	38.491160	846.841774	2.757689	3.6
min	9.000000	3.000000	68.000000	46.000000	1613.000000	8.000000	70.0
25%	17.500000	4.000000	104.250000	75.000000	2223.750000	13.825000	73.0
50%	23.000000	4.000000	148.500000	93.500000	2803.500000	15.500000	76.0
75%	29.000000	8.000000	262.000000	126.000000	3608.000000	17.175000	79.0
max	46.600000	8.000000	455.000000	230.000000	5140.000000	24.800000	82.0

In [ ]:

```
car.T
```

Out[ ]:

	0	1	2	3	4	5	6	7	8
mpg	18.0	15.0	18.0	16.0	17.0	15.0	14.0	14.0	14.0
cylinders	8	8	8	8	8	8	8	8	8
displacement	307.0	350.0	318.0	304.0	302.0	429.0	454.0	440.0	455.0
horsepower	130.0	165.0	150.0	150.0	140.0	198.0	220.0	215.0	225.0
weight	3504	3693	3436	3433	3449	4341	4354	4312	4425
acceleration	12.0	11.5	11.0	12.0	10.5	10.0	9.0	8.5	10.0
model_year	70	70	70	70	70	70	70	70	70
origin	usa	usa	usa	usa	usa	usa	usa	usa	usa
name	chevrolet chevelle malibu	buick skylark 320	plymouth satellite	amc rebel sst	ford torino	ford galaxie 500	chevrolet impala	plymouth fury iii	pontiac catalina

9 rows × 398 columns

Excercise 3

In [ ]:

```
titanic = pd.read_csv('https://github.com/YBI-Foundation/Dataset/raw/main/Titanic.csv')
```

In [ ]:

```
titanic.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 1309 entries, 0 to 1308
Data columns (total 14 columns):
 #   Column     Non-Null Count  Dtype  
---  ------     --------------  -----  
 0   pclass     1309 non-null   int64  
 1   survived   1309 non-null   int64  
 2   name       1309 non-null   object 
 3   sex        1309 non-null   object 
 4   age        1046 non-null   float64
 5   sibsp      1309 non-null   int64  
 6   parch      1309 non-null   int64  
 7   ticket     1309 non-null   object 
 8   fare       1308 non-null   float64
 9   cabin      295 non-null    object 
 10  embarked   1307 non-null   object 
 11  boat       486 non-null    object 
 12  body       121 non-null    float64
 13  home.dest  745 non-null    object 
dtypes: float64(3), int64(4), object(7)
memory usage: 143.3+ KB
```

In [ ]:

```
titanic.columns
```

Out[ ]:

```
Index(['pclass', 'survived', 'name', 'sex', 'age', 'sibsp', 'parch',
'ticket',
       'fare', 'cabin', 'embarked', 'boat', 'body', 'home.dest'],
      dtype='object')
```

In [ ]:

```
titanic.name
```

Out[ ]:

```
0                         Allen, Miss. Elisabeth Walton
1                        Allison, Master. Hudson Trevor
2                          Allison, Miss. Helen Loraine
3                  Allison, Mr. Hudson Joshua Creighton
4       Allison, Mrs. Hudson J C (Bessie Waldo Daniels)
                              ...                      
1304                           Zabour, Miss. Hileni
1305                          Zabour, Miss. Thamine
1306                       Zakarian, Mr. Mapriededer
1307                             Zakarian, Mr. Ortin
1308                              Zimmerman, Mr. Leo
Name: name, Length: 1309, dtype: object
```

In [ ]:

```
type(titanic.name)
```

Out[ ]:

```
pandas.core.series.Series
```

In [ ]:

```
titanic['name']
```

Out[ ]:

```
0                         Allen, Miss. Elisabeth Walton
1                        Allison, Master. Hudson Trevor
2                          Allison, Miss. Helen Loraine
3                  Allison, Mr. Hudson Joshua Creighton
4       Allison, Mrs. Hudson J C (Bessie Waldo Daniels)
                              ...
1304                               Zabour, Miss. Hileni
1305                              Zabour, Miss. Thamine
1306                          Zakarian, Mr. Mapriededer
1307                                Zakarian, Mr. Ortin
1308                                 Zimmerman, Mr. Leo
Name: name, Length: 1309, dtype: object
```

In [ ]:

```
name = titanic['name']
```

In [ ]:

```
type(name)
```

Out[ ]:

```
pandas.core.series.Series
```

In [ ]:

```
name = titanic[['name']]
```

In [ ]:

```
name
```

Out[ ]:

	name
0	Allen, Miss. Elisabeth Walton
1	Allison, Master. Hudson Trevor
2	Allison, Miss. Helen Loraine
3	Allison, Mr. Hudson Joshua Creighton
4	Allison, Mrs. Hudson J C (Bessie Waldo Daniels)
...	...
1304	Zabour, Miss. Hileni
1305	Zabour, Miss. Thamine
1306	Zakarian, Mr. Mapriededer
1307	Zakarian, Mr. Ortin
1308	Zimmerman, Mr. Leo

1309 rows × 1 columns

In [ ]:

```
type(name)
```

Out[ ]:

```
pandas.core.frame.DataFrame
```

In [ ]:

```
name.shape
```

Out[ ]:

```
(1309, 1)
```

In [ ]:

```
titanic.iloc[100,:]
```

Out[ ]:

```
pclass                                                    1
survived                                                  1
name         Duff Gordon, Sir. Cosmo Edmund ("Mr Morgan")
sex                                                    male
age                                                    49.0
sibsp                                                     1
parch                                                     0
ticket                                             PC 17485
fare                                                56.9292
cabin                                                   A20
embarked                                                  C
boat                                                      1
body                                                    NaN
home.dest                                    London / Paris
Name: 100, dtype: object
```

In [ ]:

```
titanic.loc[100,:]
```

Out[ ]:

```
pclass                                                    1
survived                                                  1
name         Duff Gordon, Sir. Cosmo Edmund ("Mr Morgan")
sex                                                    male
age                                                    49.0
sibsp                                                     1
parch                                                     0
ticket                                             PC 17485
fare                                                56.9292
cabin                                                   A20
embarked                                                  C
boat                                                      1
body                                                    NaN
home.dest                                    London / Paris
Name: 100, dtype: object
```

In [ ]:

```
titanic.iloc[:,[2,8]]
```

Out[ ]:

	name	fare
0	Allen, Miss. Elisabeth Walton	211.3375
1	Allison, Master. Hudson Trevor	151.5500
2	Allison, Miss. Helen Loraine	151.5500
3	Allison, Mr. Hudson Joshua Creighton	151.5500
4	Allison, Mrs. Hudson J C (Bessie Waldo Daniels)	151.5500
...	...	...
1304	Zabour, Miss. Hileni	14.4542
1305	Zabour, Miss. Thamine	14.4542
1306	Zakarian, Mr. Mapriededer	7.2250
1307	Zakarian, Mr. Ortin	7.2250
1308	Zimmerman, Mr. Leo	7.8750

1309 rows × 2 columns

In [ ]:

```
titanic.loc[:,['name','fare']]
```

Out[ ]:

	name	fare
0	Allen, Miss. Elisabeth Walton	211.3375
1	Allison, Master. Hudson Trevor	151.5500
2	Allison, Miss. Helen Loraine	151.5500
3	Allison, Mr. Hudson Joshua Creighton	151.5500
4	Allison, Mrs. Hudson J C (Bessie Waldo Daniels)	151.5500
...	...	...
1304	Zabour, Miss. Hileni	14.4542
1305	Zabour, Miss. Thamine	14.4542
1306	Zakarian, Mr. Mapriededer	7.2250
1307	Zakarian, Mr. Ortin	7.2250
1308	Zimmerman, Mr. Leo	7.8750

1309 rows × 2 columns

In [ ]:

```
titanic.loc[[50,25,15],['pclass','fare','age']]
```

Out[ ]:

	pclass	fare	age
50	1	512.3292	58.0
25	1	26.0000	25.0
15	1	25.9250	NaN

In [ ]:

```
titanic.iloc[[50,25,15],[0,8,4]]
```

Out[ ]:

	pclass	fare	age
50	1	512.3292	58.0
25	1	26.0000	25.0
15	1	25.9250	NaN

In [ ]:

```
titanic.loc[10:25,['pclass','fare','age']]
```

Out[ ]:

	pclass	fare	age
10	1	227.5250	47.0
11	1	227.5250	18.0
12	1	69.3000	24.0
13	1	78.8500	26.0
14	1	30.0000	80.0
15	1	25.9250	NaN
16	1	247.5208	24.0
17	1	247.5208	50.0
18	1	76.2917	32.0
19	1	75.2417	36.0
20	1	52.5542	37.0
21	1	52.5542	47.0
22	1	30.0000	26.0
23	1	227.5250	42.0
24	1	221.7792	29.0
25	1	26.0000	25.0

In [ ]:

```
titanic.iloc[10:26,[0,8,4]]
```

Out[ ]:

	pclass	fare	age
10	1	227.5250	47.0
11	1	227.5250	18.0
12	1	69.3000	24.0
13	1	78.8500	26.0
14	1	30.0000	80.0
15	1	25.9250	NaN
16	1	247.5208	24.0
17	1	247.5208	50.0
18	1	76.2917	32.0
19	1	75.2417	36.0
20	1	52.5542	37.0
21	1	52.5542	47.0
22	1	30.0000	26.0
23	1	227.5250	42.0
24	1	221.7792	29.0
25	1	26.0000	25.0

In [ ]:

```
titanic.loc[10:15,'pclass':'age']
```

Out[ ]:

	pclass	survived	name	sex	age
10	1	0	Astor, Col. John Jacob	male	47.0
11	1	1	Astor, Mrs. John Jacob (Madeleine Talmadge Force)	female	18.0
12	1	1	Aubart, Mme. Leontine Pauline	female	24.0
13	1	1	Barber, Miss. Ellen "Nellie"	female	26.0
14	1	1	Barkworth, Mr. Algernon Henry Wilson	male	80.0
15	1	0	Baumann, Mr. John D	male	NaN

In [ ]:

```
titanic.iloc[10:16,0:5]
```

Out[ ]:

	pclass	survived	name	sex	age
10	1	0	Astor, Col. John Jacob	male	47.0
11	1	1	Astor, Mrs. John Jacob (Madeleine Talmadge Force)	female	18.0
12	1	1	Aubart, Mme. Leontine Pauline	female	24.0
13	1	1	Barber, Miss. Ellen "Nellie"	female	26.0
14	1	1	Barkworth, Mr. Algernon Henry Wilson	male	80.0
15	1	0	Baumann, Mr. John D	male	NaN

In [ ]:

```
titanic[titanic['age']>=35]
```

Out[ ]:

	pclass	survived	name	sex	age	sibsp	parch	ticket	fare	ca
5	1	1	Anderson, Mr. Harry	male	48.0	0	0	19952	26.5500	
6	1	1	Andrews, Miss. Kornelia Theodosia	female	63.0	1	0	13502	77.9583	
7	1	0	Andrews, Mr. Thomas Jr	male	39.0	0	0	112050	0.0000	
8	1	1	Appleton, Mrs. Edward Dale (Charlotte Lamson)	female	53.0	2	0	11769	51.4792	C
9	1	0	Artagaveytia, Mr. Ramon	male	71.0	0	0	PC 17609	49.5042	N
10	1	0	Astor, Col. John Jacob	male	47.0	1	0	PC 17757	227.5250	
14	1	1	Barkworth, Mr. Algernon Henry Wilson	male	80.0	0	0	27042	30.0000	
17	1	1	Baxter, Mrs. James (Helene DeLaudeniere Chaput)	female	50.0	0	1	PC 17558	247.5208	
19	1	0	Beattie, Mr. Thomson	male	36.0	0	0	13050	75.2417	
20	1	1	Beckwith, Mr. Richard Leonard	male	37.0	1	1	11751	52.5542	
21	1	1	Beckwith, Mrs. Richard Leonard (Sallie Monypeny)	female	47.0	1	1	11751	52.5542	
23	1	1	Bidois, Miss. Rosalie	female	42.0	0	0	PC 17757	227.5250	N
28	1	1	Bissette, Miss. Amelia	female	35.0	0	0	PC 17760	135.6333	
30	1	0	Blackwell, Mr. Stephen Weart	male	45.0	0	0	113784	35.5000	
31	1	1	Blank, Mr. Henry	male	40.0	0	0	112277	31.0000	
33	1	1	Bonnell, Miss. Elizabeth	female	58.0	0	0	113783	26.5500	C
34	1	0	Borebank, Mr. John James	male	42.0	0	0	110489	26.5500	
35	1	1	Bowen, Miss. Grace Scott	female	45.0	0	0	PC 17608	262.3750	N
38	1	0	Brady, Mr. John Bertram	male	41.0	0	0	113054	30.5000	

	pclass	survived	name	sex	age	sibsp	parch	ticket	fare	ca
39	1	0	Brandeis, Mr. Emil	male	48.0	0	0	PC 17591	50.4958	
41	1	1	Brown, Mrs. James Joseph (Margaret Tobin)	female	44.0	0	0	PC 17610	27.7208	
42	1	1	Brown, Mrs. John Murray (Caroline Lane Lamson)	female	59.0	2	0	11769	51.4792	C
43	1	1	Bucknell, Mrs. William Robert (Emma Eliza Ward)	female	60.0	0	0	11813	76.2917	
44	1	1	Burns, Miss. Elizabeth Margaret	female	41.0	0	0	16966	134.5000	
45	1	0	Butt, Major. Archibald Willingham	male	45.0	0	0	113050	26.5500	
47	1	1	Calderhead, Mr. Edward Pennington	male	42.0	0	0	PC 17476	26.2875	
48	1	1	Candee, Mrs. Edward (Helen Churchill Hungerford)	female	53.0	0	0	PC 17606	27.4458	I
49	1	1	Cardeza, Mr. Thomas Drake Martinez	male	36.0	0	1	PC 17755	512.3292	
50	1	1	Cardeza, Mrs. James Warburton Martinez (Charlo...	female	58.0	0	1	PC 17755	512.3292	
56	1	1	Carter, Mr. William Ernest	male	36.0	1	2	113760	120.0000	
57	1	1	Carter, Mrs. William Ernest (Lucile Polk)	female	36.0	1	2	113760	120.0000	
58	1	0	Case, Mr. Howard Brown	male	49.0	0	0	19924	26.0000	I
60	1	0	Cavendish, Mr. Tyrell William	male	36.0	1	0	19877	78.8500	
61	1	1	Cavendish, Mrs. Tyrell William (Julia Florence...	female	76.0	1	0	19877	78.8500	
62	1	0	Chaffee, Mr. Herbert Fuller	male	46.0	1	0	W.E.P. 5734	61.1750	

	pclass	survived	name	sex	age	sibsp	parch	ticket	fare	ca
63	1	1	Chaffee, Mrs. Herbert Fuller (Carrie Constance...	female	47.0	1	0	W.E.P. 5734	61.1750	
66	1	1	Chaudanson, Miss. Victorine	female	36.0	0	0	PC 17608	262.3750	
68	1	1	Chevre, Mr. Paul Romaine	male	45.0	0	0	PC 17594	29.7000	
75	1	0	Colley, Mr. Edward Pomeroy	male	47.0	0	0	5727	25.5875	
76	1	1	Compton, Miss. Sara Rebecca	female	39.0	1	1	PC 17756	83.1583	
77	1	0	Compton, Mr. Alexander Taylor Jr	male	37.0	1	1	PC 17756	83.1583	
78	1	1	Compton, Mrs. Alexander Taylor (Mary Eliza Ing...	female	64.0	0	2	PC 17756	83.1583	
79	1	1	Cornell, Mrs. Robert Clifford (Malvina Helen L...	female	55.0	2	0	11770	25.7000	C
81	1	0	Crosby, Capt. Edward Gifford	male	70.0	1	1	WE/P 5735	71.0000	
82	1	1	Crosby, Miss. Harriet R	female	36.0	0	2	WE/P 5735	71.0000	
83	1	1	Crosby, Mrs. Edward Gifford (Catherine Elizabe...	female	64.0	1	1	112901	26.5500	
84	1	0	Cumings, Mr. John Bradley	male	39.0	1	0	PC 17599	71.2833	
85	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0	1	0	PC 17599	71.2833	
86	1	1	Daly, Mr. Peter Denis	male	51.0	0	0	113055	26.5500	
93	1	1	Dodge, Dr. Washington	male	53.0	1	1	33638	81.8583	
95	1	1	Dodge, Mrs. Washington (Ruth Vidaver)	female	54.0	1	1	33638	81.8583	
96	1	0	Douglas, Mr. Walter Donald	male	50.0	1	0	PC 17761	106.4250	
98	1	1	Douglas, Mrs. Walter Donald (Mahala Dutton)	female	48.0	1	0	PC 17761	106.4250	

	pclass	survived	name	sex	age	sibsp	parch	ticket	fare	ca
99	1	1	Duff Gordon, Lady. (Lucille Christiana Sutherl...	female	48.0	1	0	11755	39.6000	
100	1	1	Duff Gordon, Sir. Cosmo Edmund ("Mr Morgan")	male	49.0	1	0	PC 17485	56.9292	
101	1	0	Dulles, Mr. William Crothers	male	39.0	0	0	PC 17580	29.7000	
103	1	1	Endres, Miss. Caroline Louise	female	38.0	0	0	PC 17757	227.5250	
104	1	1	Eustis, Miss. Elizabeth Mussey	female	54.0	1	0	36947	78.2667	
105	1	0	Evans, Miss. Edith Corse	female	36.0	0	0	PC 17531	31.6792	
109	1	1	Flynn, Mr. John Irwin ("Irving")	male	36.0	0	0	PC 17474	26.3875	
115	1	0	Fortune, Mr. Mark	male	64.0	1	4	19950	263.0000	
116	1	1	Fortune, Mrs. Mark (Mary McDougald)	female	60.0	1	4	19950	263.0000	
119	1	1	Frauenthal, Dr. Henry William	male	50.0	2	0	PC 17611	133.6500	I
120	1	1	Frauenthal, Mr. Isaac Gerald	male	43.0	1	0	17765	27.7208	
123	1	1	Frolicher-Stehli, Mr. Maxmillian	male	60.0	1	1	13567	79.2000	
124	1	1	Frolicher-Stehli, Mrs. Maxmillian (Margaretha ...	female	48.0	1	1	13567	79.2000	
126	1	0	Futrelle, Mr. Jacques Heath	male	37.0	1	0	113803	53.1000	C
127	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35.0	1	0	113803	53.1000	C
128	1	0	Gee, Mr. Arthur H	male	47.0	0	0	111320	38.5000	
129	1	1	Geiger, Miss. Amalie	female	35.0	0	0	113503	211.5000	C
131	1	1	Gibson, Mrs. Leonard (Pauline C Boeson)	female	45.0	0	1	112378	59.4000	I

	pclass	survived	name	sex	age	sibsp	parch	ticket	fare	ca
133	1	1	Goldenberg, Mr. Samuel L	male	49.0	1	0	17453	89.1042	
135	1	0	Goldschmidt, Mr. George B	male	71.0	0	0	PC 17754	34.6542	
136	1	1	Gracie, Col. Archibald IV	male	53.0	0	0	113780	28.5000	
138	1	0	Graham, Mr. George Edward	male	38.0	0	1	PC 17582	153.4625	
139	1	1	Graham, Mrs. William Thompson (Edith Junkins)	female	58.0	0	1	PC 17582	153.4625	C
141	1	1	Greenfield, Mrs. Leo David (Blanche Strouse)	female	45.0	0	1	PC 17759	63.3583	
142	1	0	Guggenheim, Mr. Benjamin	male	46.0	0	0	PC 17593	79.2000	
145	1	1	Harper, Mr. Henry Sleeper	male	48.0	1	0	PC 17572	76.7292	
146	1	1	Harper, Mrs. Henry Sleeper (Myna Haxtun)	female	49.0	1	0	PC 17572	76.7292	
148	1	0	Harris, Mr. Henry Birkhardt	male	45.0	1	0	36973	83.4750	
149	1	1	Harris, Mrs. Henry Birkhardt (Irene Wallach)	female	35.0	1	0	36973	83.4750	
150	1	0	Harrison, Mr. William	male	40.0	0	0	112059	0.0000	
154	1	0	Hays, Mr. Charles Melville	male	55.0	1	1	12749	93.5000	
155	1	1	Hays, Mrs. Charles Melville (Clara Jennings Gr...	female	52.0	1	1	12749	93.5000	
156	1	0	Head, Mr. Christopher	male	42.0	0	0	113038	42.5000	
158	1	0	Hipkins, Mr. William Edward	male	55.0	0	0	680	50.0000	
160	1	1	Hippach, Mrs. Louis Albert (Ida Sophia Fischer)	female	44.0	0	1	111361	57.9792	
161	1	1	Hogeboom, Mrs. John C (Anna Andrews)	female	51.0	1	0	13502	77.9583	

	pclass	survived	name	sex	age	sibsp	parch	ticket	fare	ca
162	1	0	Holverson, Mr. Alexander Oskar	male	42.0	1	0	113789	52.0000	N
163	1	1	Holverson, Mrs. Alexander Oskar (Mary Aline To...	female	35.0	1	0	113789	52.0000	N
164	1	1	Homer, Mr. Harry ("Mr E Haven")	male	35.0	0	0	111426	26.5500	N
165	1	1	Hoyt, Mr. Frederick Maxfield	male	38.0	1	0	19943	90.0000	
167	1	1	Hoyt, Mrs. Frederick Maxfield (Jane Anne Forby)	female	35.0	1	0	19943	90.0000	
168	1	1	Icard, Miss. Amelie	female	38.0	0	0	113572	80.0000	
169	1	0	Isham, Miss. Ann Elizabeth	female	50.0	0	0	PC 17595	28.7125	
170	1	1	Ismay, Mr. Joseph Bruce	male	49.0	0	0	112058	0.0000	
171	1	0	Jones, Mr. Charles Cresson	male	46.0	0	0	694	26.0000	N
172	1	0	Julian, Mr. Henry Forbes	male	50.0	0	0	113044	26.0000	
174	1	0	Kent, Mr. Edward Austin	male	58.0	0	0	11771	29.7000	
175	1	0	Kenyon, Mr. Frederick R	male	41.0	1	0	17464	51.8625	
177	1	1	Kimball, Mr. Edwin Nelson Jr	male	42.0	1	0	11753	52.5542	
178	1	1	Kimball, Mrs. Edwin Nelson Jr (Gertrude Parsons)	female	45.0	1	0	11753	52.5542	
180	1	1	Kreuchen, Miss. Emilie	female	39.0	0	0	24160	211.3375	N
181	1	1	Leader, Dr. Alice (Farnham)	female	49.0	0	0	17465	25.9292	
183	1	1	Lesurer, Mr. Gustave J	male	35.0	0	0	PC 17755	512.3292	B
185	1	0	Lindeberg-Lind, Mr. Erik Gustaf ("Mr Edward Li...	male	42.0	0	0	17475	26.5500	N
186	1	1	Lindstrom, Mrs. Carl Johan (Sigrid Posse)	female	55.0	0	0	112377	27.7208	N

	pclass	survived	name	sex	age	sibsp	parch	ticket	fare	ca
188	1	1	Lines, Mrs. Ernest H (Elizabeth Lindsey James)	female	51.0	0	1	PC 17592	39.4000	
192	1	1	Lurette, Miss. Elise	female	58.0	0	0	PC 17569	146.5208	
200	1	0	McCaffry, Mr. Thomas Francis	male	46.0	0	0	13050	75.2417	
201	1	0	McCarthy, Mr. Timothy J	male	54.0	0	0	17463	51.8625	
202	1	1	McGough, Mr. James Robert	male	36.0	0	0	PC 17473	26.2875	
205	1	0	Millet, Mr. Francis Davis	male	65.0	0	0	13509	26.5500	
206	1	0	Minahan, Dr. William Edward	male	44.0	2	0	19928	90.0000	
208	1	1	Minahan, Mrs. William Edward (Lillian E Thorpe)	female	37.0	1	0	19928	90.0000	
210	1	0	Molson, Mr. Harry Markland	male	55.0	0	0	113787	30.5000	
211	1	0	Moore, Mr. Clarence Bloomfield	male	47.0	0	0	113796	42.4000	N
212	1	0	Natsch, Mr. Charles H	male	37.0	0	1	PC 17596	29.7000	C
215	1	0	Newell, Mr. Arthur Webster	male	58.0	0	2	35273	113.2750	
217	1	0	Nicholson, Mr. Arthur Ernest	male	64.0	0	0	693	26.0000	N
218	1	1	Oliva y Ocana, Dona. Fermina	female	39.0	0	0	PC 17758	108.9000	C
221	1	0	Ostby, Mr. Engelhart Cornelius	male	65.0	0	1	113509	61.9792	
224	1	0	Partner, Mr. Austen	male	45.5	0	0	113043	28.5000	C
231	1	1	Peuchen, Major. Arthur Godfrey	male	52.0	0	0	113786	30.5000	C
232	1	0	Porter, Mr. Walter Chamberlain	male	47.0	0	0	110465	52.0000	C
233	1	1	Potter, Mrs. Thomas Jr (Lily Alexenia Wilson)	female	56.0	0	1	11767	83.1583	

	pclass	survived	name	sex	age	sibsp	parch	ticket	fare	ca
234	1	0	Reuchlin, Jonkheer. John George	male	38.0	0	0	19972	0.0000	N
238	1	1	Robert, Mrs. Edward Scott (Elisabeth Walton Mc...	female	43.0	0	1	24160	211.3375	
240	1	1	Romaine, Mr. Charles Hallace ("Mr C Rolmane")	male	45.0	0	0	111428	26.5500	N
243	1	0	Rosenshine, Mr. George ("Mr George Thorne")	male	46.0	0	0	PC 17585	79.2000	N
244	1	0	Ross, Mr. John Hugo	male	36.0	0	0	13049	40.1250	
246	1	0	Rothschild, Mr. Martin	male	55.0	1	0	PC 17603	59.4000	N
247	1	1	Rothschild, Mrs. Martin (Elizabeth L. Barrett)	female	54.0	1	0	PC 17603	59.4000	N
252	1	0	Ryerson, Mr. Arthur Larned	male	61.0	1	3	PC 17608	262.3750	
253	1	1	Ryerson, Mrs. Arthur Larned (Emily Maria Borie)	female	48.0	1	3	PC 17608	262.3750	
257	1	1	Schabert, Mrs. Paul (Emma Mock)	female	35.0	1	0	13236	57.7500	
260	1	1	Shutes, Miss. Elizabeth W	female	40.0	0	0	PC 17582	153.4625	C
261	1	1	Silverthorne, Mr. Spencer Victor	male	35.0	0	0	PC 17475	26.2875	
262	1	0	Silvey, Mr. William Baird	male	50.0	1	0	13507	55.9000	
263	1	1	Silvey, Mrs. William Baird (Alice Munger)	female	39.0	1	0	13507	55.9000	
264	1	1	Simonius-Blumer, Col. Oberst Alfons	male	56.0	0	0	13213	35.5000	
266	1	0	Smart, Mr. John Montgomery	male	56.0	0	0	113792	26.5500	N
267	1	0	Smith, Mr. James Clinch	male	56.0	0	0	17764	30.6958	
274	1	1	Spedden, Mr. Frederic Oakley	male	45.0	1	1	16966	134.5000	

	pclass	survived	name	sex	age	sibsp	parch	ticket	fare	ca
275	1	1	Spedden, Mrs. Frederic Oakley (Margaretta Corn...	female	40.0	1	1	16966	134.5000	
276	1	0	Spencer, Mr. William Augustus	male	57.0	1	0	PC 17569	146.5208	
279	1	0	Stead, Mr. William Thomas	male	62.0	0	0	113514	26.5500	
280	1	1	Stengel, Mr. Charles Emil Henry	male	54.0	1	0	11778	55.4417	C
281	1	1	Stengel, Mrs. Charles Emil Henry (Annie May Mo...	female	43.0	1	0	11778	55.4417	C
282	1	1	Stephenson, Mrs. Walter Bertram (Martha Eustis)	female	52.0	1	0	36947	78.2667	
284	1	1	Stone, Mrs. George Nelson (Martha Evelyn)	female	62.0	0	0	113572	80.0000	
285	1	0	Straus, Mr. Isidor	male	67.0	1	0	PC 17483	221.7792	
286	1	0	Straus, Mrs. Isidor (Rosalie Ida Blun)	female	63.0	1	0	PC 17483	221.7792	
287	1	0	Sutton, Mr. Frederick	male	61.0	0	0	36963	32.3208	
288	1	1	Swift, Mrs. Frederick Joel (Margaret Welles Ba...	female	48.0	0	0	17466	25.9292	
290	1	0	Taussig, Mr. Emil	male	52.0	1	1	110413	79.6500	
291	1	1	Taussig, Mrs. Emil (Tillie Mandelbaum)	female	39.0	1	1	110413	79.6500	
292	1	1	Taylor, Mr. Elmer Zebley	male	48.0	1	0	19996	52.0000	C
294	1	0	Thayer, Mr. John Borland	male	49.0	1	1	17421	110.8833	
296	1	1	Thayer, Mrs. John Borland (Marian Longstreth M...	female	39.0	1	1	17421	110.8833	
299	1	0	Uruchurtu, Don. Manuel E	male	40.0	0	0	PC 17601	27.7208	I

	pclass	survived	name	sex	age	sibsp	parch	ticket	fare	ca
300	1	0	Van der hoef, Mr. Wyckoff	male	61.0	0	0	111240	33.5000	
301	1	0	Walker, Mr. William Anderson	male	47.0	0	0	36967	34.0208	
302	1	1	Ward, Miss. Anna	female	35.0	0	0	PC 17755	512.3292	N
303	1	0	Warren, Mr. Frank Manley	male	64.0	1	0	110813	75.2500	
304	1	1	Warren, Mrs. Frank Manley (Anna Sophia Atkinson)	female	60.0	1	0	110813	75.2500	
305	1	0	Weir, Col. John	male	60.0	0	0	113800	26.5500	N
306	1	0	White, Mr. Percival Wayland	male	54.0	0	1	35281	77.2875	
308	1	1	White, Mrs. John Stuart (Ella Holmes)	female	55.0	0	0	PC 17760	135.6333	
310	1	0	Wick, Mr. George Dennick	male	57.0	1	1	36928	164.8667	N
311	1	1	Wick, Mrs. George Dennick (Mary Hitchcock)	female	45.0	1	1	36928	164.8667	N
312	1	0	Widener, Mr. George Dunton	male	50.0	1	1	113503	211.5000	
314	1	1	Widener, Mrs. George Dunton (Eleanor Elkins)	female	50.0	1	1	113503	211.5000	
316	1	0	Williams, Mr. Charles Duane	male	51.0	0	1	PC 17597	61.3792	N
321	1	0	Wright, Mr. George	male	62.0	0	0	113807	26.5500	N
322	1	1	Young, Miss. Marie Grice	female	36.0	0	0	PC 17760	135.6333	
329	2	1	Angle, Mrs. William A (Florence "Mary" Agnes H...	female	36.0	1	0	226875	26.0000	N
330	2	0	Ashby, Mr. John	male	57.0	0	0	244346	13.0000	N
333	2	1	Ball, Mrs. (Ada E Hall)	female	36.0	0	0	28551	13.0000	

	pclass	survived	name	sex	age	sibsp	parch	ticket	fare	ca
335	2	0	Bateman, Rev. Robert James	male	51.0	0	0	S.O.P. 1166	12.5250	N
342	2	1	Becker, Mrs. Allen Oliver (Nellie E Baumgardner)	female	36.0	0	3	230136	39.0000	
347	2	0	Bowenur, Mr. Solomon	male	42.0	0	0	211535	13.0000	N
351	2	0	Brown, Mr. Thomas William Solomon	male	60.0	1	1	29750	39.0000	N
352	2	1	Brown, Mrs. Thomas William Solomon (Elizabeth ...	female	40.0	1	1	29750	39.0000	N
355	2	1	Buss, Miss. Kate	female	36.0	0	0	27849	13.0000	N
357	2	0	Byles, Rev. Thomas Roussel Davids	male	42.0	0	0	244310	13.0000	N
358	2	1	Bystrom, Mrs. (Karolina)	female	42.0	0	0	236852	13.0000	N
362	2	1	Cameron, Miss. Clear Annie	female	35.0	0	0	F.C.C. 13528	21.0000	N
365	2	0	Carter, Mrs. Ernest Courtenay (Lilian Hughes)	female	44.0	1	0	244252	26.0000	N
366	2	0	Carter, Rev. Ernest Courtenay	male	54.0	1	0	244252	26.0000	N
367	2	0	Chapman, Mr. Charles Henry	male	52.0	0	0	248731	13.5000	N
368	2	0	Chapman, Mr. John Henry	male	37.0	1	0	SC/AH 29037	26.0000	N
371	2	1	Christy, Mrs. (Alice Frances)	female	45.0	0	2	237789	30.0000	N
387	2	1	Davies, Mrs. John Morgan (Elizabeth Agnes Mary...	female	48.0	0	2	C.A. 33112	36.7500	N
397	2	0	Downton, Mr. William James	male	54.0	0	0	28403	26.0000	N
399	2	0	Drew, Mr. James Vivian	male	42.0	1	1	28220	32.5000	N
406	2	0	Faunthorpe, Mr. Harry	male	40.0	1	0	2926	26.0000	N

	pclass	survived	name	sex	age	sibsp	parch	ticket	fare	ca
409	2	0	Fox, Mr. Stanley Hubert	male	36.0	0	0	229236	13.0000	N
411	2	0	Funk, Miss. Annie Clemmer	female	38.0	0	0	237671	13.0000	N
412	2	0	Fynney, Mr. Joseph J	male	35.0	0	0	239865	26.0000	N
413	2	0	Gale, Mr. Harry	male	38.0	1	0	28664	21.0000	N
418	2	0	Gilbert, Mr. William	male	47.0	0	0	C.A. 30769	10.5000	N
425	2	0	Greenberg, Mr. Samuel	male	52.0	0	0	250647	13.0000	N
429	2	0	Harbeck, Mr. William H	male	44.0	0	0	248746	13.0000	N
432	2	1	Harris, Mr. George	male	62.0	0	0	S.W./PP 752	10.5000	N
435	2	0	Hart, Mr. Benjamin	male	43.0	1	1	F.C.C. 13529	26.2500	N
436	2	1	Hart, Mrs. Benjamin (Esther Ada Bloomfield)	female	45.0	1	1	F.C.C. 13529	26.2500	N
439	2	0	Herman, Mr. Samuel	male	49.0	1	2	220845	65.0000	N
440	2	1	Herman, Mrs. Samuel (Jane Laver)	female	48.0	1	2	220845	65.0000	N
441	2	1	Hewlett, Mrs. (Mary D Kingcome)	female	55.0	0	0	248706	16.0000	N
448	2	0	Hocking, Mr. Samuel James Metcalfe	male	36.0	0	0	242963	13.0000	N
449	2	1	Hocking, Mrs. Elizabeth (Eliza Needs)	female	54.0	1	3	29105	23.0000	N
450	2	0	Hodges, Mr. Henry Price	male	50.0	0	0	250643	13.0000	N
451	2	0	Hold, Mr. Stephen	male	44.0	1	0	26707	26.0000	N
454	2	1	Hosono, Mr. Masabumi	male	42.0	0	0	237798	13.0000	N
455	2	0	Howard, Mr. Benjamin	male	63.0	1	0	24065	26.0000	N
456	2	0	Howard, Mrs. Benjamin (Ellen Truelove Arman)	female	60.0	1	0	24065	26.0000	N

	pclass	survived	name	sex	age	sibsp	parch	ticket	fare	ca
459	2	0	Jacobsohn, Mr. Sidney Samuel	male	42.0	1	0	243847	27.0000	N
461	2	0	Jarvis, Mr. John Denzil	male	47.0	0	0	237565	15.0000	N
470	2	0	Keane, Mr. Daniel	male	35.0	0	0	233734	12.3500	N
471	2	1	Kelly, Mrs. Florence "Fannie"	female	45.0	0	0	223596	13.5000	N
472	2	0	Kirkland, Rev. Charles Leonard	male	57.0	0	0	219533	12.3500	N
485	2	0	Levy, Mr. Rene Jacques	male	36.0	0	0	SC/Paris 2163	12.8750	
487	2	0	Lingane, Mr. John	male	61.0	0	0	235509	12.3500	N
488	2	0	Louch, Mr. Charles Alexander	male	50.0	1	0	SC/AH 3085	26.0000	N
489	2	1	Louch, Mrs. Charles Alexander (Alice Adelaide ...	female	42.0	1	0	SC/AH 3085	26.0000	N
490	2	0	Mack, Mrs. (Mary)	female	57.0	0	0	S.O./P.P. 3	10.5000	
497	2	0	Maybery, Mr. Frank Hubert	male	40.0	0	0	239059	16.0000	N
500	2	0	McKane, Mr. Peter David	male	46.0	0	0	28403	26.0000	N
502	2	1	Mellinger, Mrs. (Elizabeth Anne Maidment)	female	41.0	0	1	250644	19.5000	N
504	2	0	Meyer, Mr. August	male	39.0	0	0	248723	13.0000	N
505	2	0	Milling, Mr. Jacob Christian	male	48.0	0	0	234360	13.0000	N
506	2	0	Mitchell, Mr. Henry Michael	male	70.0	0	0	C.A. 24580	10.5000	N
508	2	0	Moraweck, Dr. Ernest	male	54.0	0	0	29011	14.0000	N
509	2	0	Morley, Mr. Henry Samuel ("Mr Henry Marshall")	male	39.0	0	0	250655	26.0000	N
511	2	0	Myles, Mr. Thomas Francis	male	62.0	0	0	240276	9.6875	N

	pclass	survived	name	sex	age	sibsp	parch	ticket	fare	ca
516	2	0	Navratil, Mr. Michel ("Louis M Hoffman")	male	36.5	0	2	230080	26.0000	
522	2	0	Otter, Mr. Richard	male	39.0	0	0	28213	13.0000	N
529	2	1	Parrish, Mrs. (Lutie Davis)	female	50.0	0	1	230433	26.0000	N
532	2	0	Peruschitz, Rev. Joseph Maria	male	41.0	0	0	237393	13.0000	N
535	2	0	Phillips, Mr. Escott Robert	male	43.0	0	1	S.O./P.P. 2	21.0000	N
543	2	0	Reeves, Mr. David	male	36.0	0	0	C.A. 17248	10.5000	N
551	2	1	Ridsdale, Miss. Lucy	female	50.0	0	0	W./C. 14258	10.5000	N
561	2	0	Sjostedt, Mr. Ernst Adolf	male	59.0	0	0	237442	13.5000	N
563	2	0	Slemen, Mr. Richard James	male	35.0	0	0	28206	10.5000	N
564	2	1	Smith, Miss. Marion Elsie	female	40.0	0	0	31418	13.0000	N
566	2	0	Stanton, Mr. Samuel Ward	male	41.0	0	0	237734	15.0458	N
570	2	1	Toomey, Miss. Ellen	female	50.0	0	0	F.C.C. 13531	10.5000	N
576	2	0	Veal, Mr. James	male	40.0	0	0	28221	13.0000	N
583	2	1	Watt, Mrs. James (Elizabeth "Bessie" Inglis Mi...	female	40.0	0	0	C.A. 33595	15.7500	N
592	2	0	West, Mr. Edwy Arthur	male	36.0	1	2	C.A. 34651	27.7500	N
594	2	0	Wheadon, Mr. Edward H	male	66.0	0	0	C.A. 24579	10.5000	N
600	3	0	Abbing, Mr. Anthony	male	42.0	0	0	C.A. 5547	7.5500	N
603	3	1	Abbott, Mrs. Stanton (Rosa Hunt)	female	35.0	1	1	C.A. 2673	20.2500	N
610	3	0	Ahlin, Mrs. Johan (Johanna Persdotter Larsson)	female	40.0	1	0	7546	9.4750	N

	pclass	survived	name	sex	age	sibsp	parch	ticket	fare	ca
618	3	0	Allen, Mr. William Henry	male	35.0	0	0	373450	8.0500	N
626	3	0	Andersson, Miss. Ida Augusta Margareta	female	38.0	4	2	347091	7.7750	N
629	3	0	Andersson, Mr. Anders Johan	male	39.0	1	5	347082	31.2750	N
632	3	0	Andersson, Mrs. Anders Johan (Alfrida Konstant...	female	39.0	1	5	347082	31.2750	N
638	3	0	Asim, Mr. Adola	male	35.0	0	0	SOTON/O.Q. 3101310	7.0500	N
644	3	0	Asplund, Mr. Carl Oscar Vilhelm Gustafsson	male	40.0	1	5	347077	31.3875	N
646	3	1	Asplund, Mrs. Carl Oscar (Selma Augusta Emilia...	female	38.0	1	5	347077	31.3875	N
647	3	1	Assaf Khalil, Mrs. Mariana ("Miriam")	female	45.0	0	0	2696	7.2250	N
662	3	0	Badt, Mr. Mohamed	male	40.0	0	0	2623	7.2250	N
666	3	0	Barbara, Mrs. (Catherine David)	female	45.0	0	1	2691	14.4542	N
683	3	0	Bourke, Mr. John	male	40.0	1	1	364849	15.5000	N
691	3	0	Brocklebank, Mr. William Alfred	male	35.0	0	0	364512	8.0500	N
699	3	0	Cacic, Mr. Luka	male	38.0	0	0	315089	8.6625	N
710	3	0	Carr, Miss. Jeannie	female	37.0	0	0	368364	7.7500	N
721	3	0	Coleff, Mr. Peju	male	36.0	0	0	349210	7.4958	N
727	3	0	Connors, Mr. Patrick	male	70.5	0	0	370369	7.7500	N
728	3	0	Cook, Mr. Jacob	male	43.0	0	0	A/5 3536	8.0500	N
729	3	0	Cor, Mr. Bartol	male	35.0	0	0	349230	7.8958	N
735	3	1	Coutts, Mrs. William (Winnie "Minnie" Treanor)	female	36.0	0	2	C.A. 37671	15.9000	N

	pclass	survived	name	sex	age	sibsp	parch	ticket	fare	ca
736	3	0	Coxon, Mr. Daniel	male	59.0	0	0	364500	7.2500	N
739	3	0	Cribb, Mr. John Hatfield	male	44.0	0	1	371362	16.1000	N
742	3	1	Dahl, Mr. Karl Edwart	male	45.0	0	0	7598	8.0500	N
758	3	1	de Messemaeker, Mr. Guillaume Joseph	male	36.5	1	0	345572	17.4000	N
759	3	1	de Messemaeker, Mrs. Guillaume Joseph (Emma)	female	36.0	1	0	345572	17.4000	N
770	3	0	Dennis, Mr. William	male	36.0	0	0	A/5 21175	7.2500	N
773	3	0	Dimic, Mr. Jovan	male	42.0	0	0	315088	8.6625	N
774	3	0	Dintcheff, Mr. Valtcho	male	43.0	0	0	349226	7.8958	N
782	3	0	Duane, Mr. Frank	male	65.0	0	0	336439	7.7500	N
788	3	0	Ekstrom, Mr. Johan	male	45.0	0	0	347061	6.9750	N
790	3	0	Elias, Mr. Joseph	male	39.0	0	2	2675	7.2292	N
793	3	0	Elsbury, Mr. William James	male	47.0	0	0	A/5 3902	7.2500	N
796	3	0	Everett, Mr. Thomas James	male	40.5	0	0	C.A. 6212	15.1000	N
797	3	0	Farrell, Mr. James	male	40.5	0	0	367232	7.7500	N
811	3	0	Ford, Mrs. Edward (Margaret Ann Watson)	female	48.0	1	3	W./C. 6608	34.3750	N
822	3	0	Goldsmith, Mr. Nathan	male	41.0	0	0	SOTON/O.Q. 3101263	7.8500	N
824	3	0	Goncalves, Mr. Manuel Estanslas	male	38.0	0	0	SOTON/O.Q. 3101306	7.0500	N
831	3	0	Goodwin, Mr. Charles Frederick	male	40.0	1	6	CA 2144	46.9000	N
832	3	0	Goodwin, Mrs. Frederick (Augusta Tyler)	female	43.0	1	6	CA 2144	46.9000	N

	pclass	survived	name	sex	age	sibsp	parch	ticket	fare	ca
833	3	0	Green, Mr. George Henry	male	51.0	0	0	21440	8.0500	N
837	3	0	Gustafsson, Mr. Anders Vilhelm	male	37.0	2	0	3101276	7.9250	N
848	3	0	Hansen, Mr. Claus Peter	male	41.0	2	0	350026	14.1083	N
851	3	1	Hansen, Mrs. Claus Peter (Jennie L Howard)	female	45.0	1	0	350026	14.1083	N
868	3	0	Holm, Mr. John Fredrik Alexander	male	43.0	0	0	C 7075	6.4500	N
873	3	0	Humblen, Mr. Adolf Mathias Nicolai Olsen	male	42.0	0	0	348121	7.6500	
884	3	0	Jensen, Mr. Niels Peder	male	48.0	0	0	350047	7.8542	N
896	3	0	Johnson, Mr. Alfred	male	49.0	0	0	LINE	0.0000	N
917	3	1	Karun, Mr. Franz	male	39.0	0	1	349256	13.4167	N
925	3	0	Kelly, Mr. James	male	44.0	0	0	363592	8.0500	N
939	3	0	Klasen, Mrs. (Hulda Kristina Eugenia Lofqvist)	female	36.0	0	2	350405	12.1833	N
943	3	0	Laitinen, Miss. Kristina Sofia	female	37.0	0	0	4135	9.5875	N
963	3	0	Leonard, Mr. Lionel	male	36.0	0	0	LINE	0.0000	N
964	3	0	Lester, Mr. James	male	39.0	0	0	A/4 48871	24.1500	N
967	3	0	Lindblom, Miss. Augusta Charlotta	female	45.0	0	0	347073	7.7500	N
968	3	0	Lindell, Mr. Edvard Bengtsson	male	36.0	1	0	349910	15.5500	N
979	3	0	Lundahl, Mr. Johan Svensson	male	51.0	0	0	347743	7.0542	N
995	3	0	Markoff, Mr. Marin	male	35.0	0	0	349213	7.8958	N
1008	3	0	McGowan, Miss. Katherine	female	35.0	0	0	9232	7.7500	N
1015	3	0	Meo, Mr. Alfonzo	male	55.5	0	0	A.5. 11206	8.0500	N

	pclass	survived	name	sex	age	sibsp	parch	ticket	fare	ca
1063	3	0	Nirva, Mr. Iisakki Antino Aijo	male	41.0	0	0	SOTON/O2 3101272	7.1250	N
1064	3	1	Niskanen, Mr. Juha	male	39.0	0	0	STON/O 2. 3101289	7.9250	N
1068	3	0	Nysveen, Mr. Johan Hansen	male	61.0	0	0	345364	6.2375	N
1084	3	0	Olsen, Mr. Karl Siegwart Andreas	male	42.0	0	1	4579	8.4042	N
1106	3	0	Panula, Mrs. Juha (Maria Emilia Ojala)	female	41.0	0	5	3101295	39.6875	N
1139	3	0	Rekic, Mr. Tido	male	38.0	0	0	349249	7.8958	N
1146	3	0	Rice, Mrs. William (Margaret Norton)	female	39.0	0	5	382652	29.1250	N
1148	3	0	Rintamaki, Mr. Matti	male	35.0	0	0	STON/O 2. 3101273	7.1250	N
1152	3	0	Robins, Mr. Alexander A	male	50.0	1	0	A/5. 3337	14.5000	N
1153	3	0	Robins, Mrs. Alexander A (Grace Charity Laury)	female	47.0	1	0	A/5. 3337	14.5000	N
1158	3	0	Rosblom, Mrs. Viktor (Helena Wilhelmina)	female	41.0	0	2	370129	20.2125	N
1160	3	0	Rouse, Mr. Richard Henry	male	50.0	0	0	A/5 3594	8.0500	N
1169	3	0	Saether, Mr. Simon Sivertsen	male	38.5	0	0	SOTON/O.Q. 3101262	7.2500	N
1183	3	0	Salonen, Mr. Johan Werner	male	39.0	0	0	3101296	7.9250	N
1203	3	0	Sivic, Mr. Husein	male	40.0	0	0	349251	7.8958	N
1210	3	0	Skoog, Mr. Wilhelm	male	40.0	1	4	347088	27.9000	N
1211	3	0	Skoog, Mrs. William (Anna Bernhardina Karlsson)	female	45.0	1	4	347088	27.9000	N
1225	3	0	Storey, Mr. Thomas	male	60.5	0	0	3701	NaN	N
1233	3	1	Sundman, Mr. Johan Julian	male	44.0	0	0	STON/O 2. 3101269	7.9250	N
1235	3	0	Svensson, Mr. Johan	male	74.0	0	0	347060	7.7750	N
1252	3	0	Torber, Mr. Ernst William	male	44.0	0	0	364511	8.0500	N

	pclass	survived	name	sex	age	sibsp	parch	ticket	fare	ca
1259	3	0	Turcin, Mr. Stjepan	male	36.0	0	0	349247	7.8958	N
1261	3	1	Turkula, Mrs. (Hedwig)	female	63.0	0	0	4134	9.5875	N
1264	3	0	van Billiard, Mr. Austin Blyler	male	40.5	0	2	A/5. 851	14.5000	N
1266	3	0	Van Impe, Mr. Jean Baptiste	male	36.0	1	1	345773	24.1500	N
1272	3	0	Vander Cruyssen, Mr. Victor	male	47.0	0	0	345765	9.0000	N
1286	3	1	Whabee, Mrs. George Joseph (Shawneene Abi-Saab)	female	38.0	0	0	2688	7.2292	N
1287	3	0	Widegren, Mr. Carl/Charles Peter	male	51.0	0	0	347064	7.7500	N
1290	3	1	Wilkes, Mrs. James (Ellen Needs)	female	47.0	1	0	363272	7.0000	N
1298	3	0	Wittevrongel, Mr. Camille	male	36.0	0	0	345771	9.5000	N
1301	3	0	Youseff, Mr. Gerious	male	45.5	0	0	2628	7.2250	N

In [ ]:

```
titanic.loc[(titanic['age']>=35),'pclass':'age']
```

Out[ ]:

	pclass	survived	name	sex	age
5	1	1	Anderson, Mr. Harry	male	48.0
6	1	1	Andrews, Miss. Kornelia Theodosia	female	63.0
7	1	0	Andrews, Mr. Thomas Jr	male	39.0
8	1	1	Appleton, Mrs. Edward Dale (Charlotte Lamson)	female	53.0
9	1	0	Artagaveytia, Mr. Ramon	male	71.0
10	1	0	Astor, Col. John Jacob	male	47.0
14	1	1	Barkworth, Mr. Algernon Henry Wilson	male	80.0
17	1	1	Baxter, Mrs. James (Helene DeLaudeniere Chaput)	female	50.0
19	1	0	Beattie, Mr. Thomson	male	36.0
20	1	1	Beckwith, Mr. Richard Leonard	male	37.0
21	1	1	Beckwith, Mrs. Richard Leonard (Sallie Monypeny)	female	47.0
23	1	1	Bidois, Miss. Rosalie	female	42.0
28	1	1	Bissette, Miss. Amelia	female	35.0
30	1	0	Blackwell, Mr. Stephen Weart	male	45.0
31	1	1	Blank, Mr. Henry	male	40.0
33	1	1	Bonnell, Miss. Elizabeth	female	58.0
34	1	0	Borebank, Mr. John James	male	42.0
35	1	1	Bowen, Miss. Grace Scott	female	45.0
38	1	0	Brady, Mr. John Bertram	male	41.0
39	1	0	Brandeis, Mr. Emil	male	48.0
41	1	1	Brown, Mrs. James Joseph (Margaret Tobin)	female	44.0
42	1	1	Brown, Mrs. John Murray (Caroline Lane Lamson)	female	59.0
43	1	1	Bucknell, Mrs. William Robert (Emma Eliza Ward)	female	60.0
44	1	1	Burns, Miss. Elizabeth Margaret	female	41.0
45	1	0	Butt, Major. Archibald Willingham	male	45.0
47	1	1	Calderhead, Mr. Edward Pennington	male	42.0
48	1	1	Candee, Mrs. Edward (Helen Churchill Hungerford)	female	53.0
49	1	1	Cardeza, Mr. Thomas Drake Martinez	male	36.0
50	1	1	Cardeza, Mrs. James Warburton Martinez (Charlo...	female	58.0
56	1	1	Carter, Mr. William Ernest	male	36.0
57	1	1	Carter, Mrs. William Ernest (Lucile Polk)	female	36.0
58	1	0	Case, Mr. Howard Brown	male	49.0
60	1	0	Cavendish, Mr. Tyrell William	male	36.0
61	1	1	Cavendish, Mrs. Tyrell William (Julia Florence...	female	76.0
62	1	0	Chaffee, Mr. Herbert Fuller	male	46.0
63	1	1	Chaffee, Mrs. Herbert Fuller (Carrie Constance...	female	47.0
66	1	1	Chaudanson, Miss. Victorine	female	36.0

	pclass	survived	name	sex	age
68	1	1	Chevre, Mr. Paul Romaine	male	45.0
75	1	0	Colley, Mr. Edward Pomeroy	male	47.0
76	1	1	Compton, Miss. Sara Rebecca	female	39.0
77	1	0	Compton, Mr. Alexander Taylor Jr	male	37.0
78	1	1	Compton, Mrs. Alexander Taylor (Mary Eliza Ing...	female	64.0
79	1	1	Cornell, Mrs. Robert Clifford (Malvina Helen L...	female	55.0
81	1	0	Crosby, Capt. Edward Gifford	male	70.0
82	1	1	Crosby, Miss. Harriet R	female	36.0
83	1	1	Crosby, Mrs. Edward Gifford (Catherine Elizabe...	female	64.0
84	1	0	Cumings, Mr. John Bradley	male	39.0
85	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0
86	1	1	Daly, Mr. Peter Denis	male	51.0
93	1	1	Dodge, Dr. Washington	male	53.0
95	1	1	Dodge, Mrs. Washington (Ruth Vidaver)	female	54.0
96	1	0	Douglas, Mr. Walter Donald	male	50.0
98	1	1	Douglas, Mrs. Walter Donald (Mahala Dutton)	female	48.0
99	1	1	Duff Gordon, Lady. (Lucille Christiana Sutherl...	female	48.0
100	1	1	Duff Gordon, Sir. Cosmo Edmund ("Mr Morgan")	male	49.0
101	1	0	Dulles, Mr. William Crothers	male	39.0
103	1	1	Endres, Miss. Caroline Louise	female	38.0
104	1	1	Eustis, Miss. Elizabeth Mussey	female	54.0
105	1	0	Evans, Miss. Edith Corse	female	36.0
109	1	1	Flynn, Mr. John Irwin ("Irving")	male	36.0
115	1	0	Fortune, Mr. Mark	male	64.0
116	1	1	Fortune, Mrs. Mark (Mary McDougald)	female	60.0
119	1	1	Frauenthal, Dr. Henry William	male	50.0
120	1	1	Frauenthal, Mr. Isaac Gerald	male	43.0
123	1	1	Frolicher-Stehli, Mr. Maxmillian	male	60.0
124	1	1	Frolicher-Stehli, Mrs. Maxmillian (Margaretha ...	female	48.0
126	1	0	Futrelle, Mr. Jacques Heath	male	37.0
127	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35.0
128	1	0	Gee, Mr. Arthur H	male	47.0
129	1	1	Geiger, Miss. Amalie	female	35.0
131	1	1	Gibson, Mrs. Leonard (Pauline C Boeson)	female	45.0
133	1	1	Goldenberg, Mr. Samuel L	male	49.0
135	1	0	Goldschmidt, Mr. George B	male	71.0
136	1	1	Gracie, Col. Archibald IV	male	53.0
138	1	0	Graham, Mr. George Edward	male	38.0
139	1	1	Graham, Mrs. William Thompson (Edith Junkins)	female	58.0

	pclass	survived	name	sex	age
141	1	1	Greenfield, Mrs. Leo David (Blanche Strouse)	female	45.0
142	1	0	Guggenheim, Mr. Benjamin	male	46.0
145	1	1	Harper, Mr. Henry Sleeper	male	48.0
146	1	1	Harper, Mrs. Henry Sleeper (Myna Haxtun)	female	49.0
148	1	0	Harris, Mr. Henry Birkhardt	male	45.0
149	1	1	Harris, Mrs. Henry Birkhardt (Irene Wallach)	female	35.0
150	1	0	Harrison, Mr. William	male	40.0
154	1	0	Hays, Mr. Charles Melville	male	55.0
155	1	1	Hays, Mrs. Charles Melville (Clara Jennings Gr...	female	52.0
156	1	0	Head, Mr. Christopher	male	42.0
158	1	0	Hipkins, Mr. William Edward	male	55.0
160	1	1	Hippach, Mrs. Louis Albert (Ida Sophia Fischer)	female	44.0
161	1	1	Hogeboom, Mrs. John C (Anna Andrews)	female	51.0
162	1	0	Holverson, Mr. Alexander Oskar	male	42.0
163	1	1	Holverson, Mrs. Alexander Oskar (Mary Aline To...	female	35.0
164	1	1	Homer, Mr. Harry ("Mr E Haven")	male	35.0
165	1	1	Hoyt, Mr. Frederick Maxfield	male	38.0
167	1	1	Hoyt, Mrs. Frederick Maxfield (Jane Anne Forby)	female	35.0
168	1	1	Icard, Miss. Amelie	female	38.0
169	1	0	Isham, Miss. Ann Elizabeth	female	50.0
170	1	1	Ismay, Mr. Joseph Bruce	male	49.0
171	1	0	Jones, Mr. Charles Cresson	male	46.0
172	1	0	Julian, Mr. Henry Forbes	male	50.0
174	1	0	Kent, Mr. Edward Austin	male	58.0
175	1	0	Kenyon, Mr. Frederick R	male	41.0
177	1	1	Kimball, Mr. Edwin Nelson Jr	male	42.0
178	1	1	Kimball, Mrs. Edwin Nelson Jr (Gertrude Parsons)	female	45.0
180	1	1	Kreuchen, Miss. Emilie	female	39.0
181	1	1	Leader, Dr. Alice (Farnham)	female	49.0
183	1	1	Lesurer, Mr. Gustave J	male	35.0
185	1	0	Lindeberg-Lind, Mr. Erik Gustaf ("Mr Edward Li...	male	42.0
186	1	1	Lindstrom, Mrs. Carl Johan (Sigrid Posse)	female	55.0
188	1	1	Lines, Mrs. Ernest H (Elizabeth Lindsey James)	female	51.0
192	1	1	Lurette, Miss. Elise	female	58.0
200	1	0	McCaffry, Mr. Thomas Francis	male	46.0
201	1	0	McCarthy, Mr. Timothy J	male	54.0
202	1	1	McGough, Mr. James Robert	male	36.0
205	1	0	Millet, Mr. Francis Davis	male	65.0
206	1	0	Minahan, Dr. William Edward	male	44.0

	pclass	survived	name	sex	age
208	1	1	Minahan, Mrs. William Edward (Lillian E Thorpe)	female	37.0
210	1	0	Molson, Mr. Harry Markland	male	55.0
211	1	0	Moore, Mr. Clarence Bloomfield	male	47.0
212	1	0	Natsch, Mr. Charles H	male	37.0
215	1	0	Newell, Mr. Arthur Webster	male	58.0
217	1	0	Nicholson, Mr. Arthur Ernest	male	64.0
218	1	1	Oliva y Ocana, Dona. Fermina	female	39.0
221	1	0	Ostby, Mr. Engelhart Cornelius	male	65.0
224	1	0	Partner, Mr. Austen	male	45.5
231	1	1	Peuchen, Major. Arthur Godfrey	male	52.0
232	1	0	Porter, Mr. Walter Chamberlain	male	47.0
233	1	1	Potter, Mrs. Thomas Jr (Lily Alexenia Wilson)	female	56.0
234	1	0	Reuchlin, Jonkheer. John George	male	38.0
238	1	1	Robert, Mrs. Edward Scott (Elisabeth Walton Mc...	female	43.0
240	1	1	Romaine, Mr. Charles Hallace ("Mr C Rolmane")	male	45.0
243	1	0	Rosenshine, Mr. George ("Mr George Thorne")	male	46.0
244	1	0	Ross, Mr. John Hugo	male	36.0
246	1	0	Rothschild, Mr. Martin	male	55.0
247	1	1	Rothschild, Mrs. Martin (Elizabeth L. Barrett)	female	54.0
252	1	0	Ryerson, Mr. Arthur Larned	male	61.0
253	1	1	Ryerson, Mrs. Arthur Larned (Emily Maria Borie)	female	48.0
257	1	1	Schabert, Mrs. Paul (Emma Mock)	female	35.0
260	1	1	Shutes, Miss. Elizabeth W	female	40.0
261	1	1	Silverthorne, Mr. Spencer Victor	male	35.0
262	1	0	Silvey, Mr. William Baird	male	50.0
263	1	1	Silvey, Mrs. William Baird (Alice Munger)	female	39.0
264	1	1	Simonius-Blumer, Col. Oberst Alfons	male	56.0
266	1	0	Smart, Mr. John Montgomery	male	56.0
267	1	0	Smith, Mr. James Clinch	male	56.0
274	1	1	Spedden, Mr. Frederic Oakley	male	45.0
275	1	1	Spedden, Mrs. Frederic Oakley (Margaretta Corn...	female	40.0
276	1	0	Spencer, Mr. William Augustus	male	57.0
279	1	0	Stead, Mr. William Thomas	male	62.0
280	1	1	Stengel, Mr. Charles Emil Henry	male	54.0
281	1	1	Stengel, Mrs. Charles Emil Henry (Annie May Mo...	female	43.0
282	1	1	Stephenson, Mrs. Walter Bertram (Martha Eustis)	female	52.0
284	1	1	Stone, Mrs. George Nelson (Martha Evelyn)	female	62.0
285	1	0	Straus, Mr. Isidor	male	67.0
286	1	0	Straus, Mrs. Isidor (Rosalie Ida Blun)	female	63.0

	pclass	survived	name	sex	age
287	1	0	Sutton, Mr. Frederick	male	61.0
288	1	1	Swift, Mrs. Frederick Joel (Margaret Welles Ba...	female	48.0
290	1	0	Taussig, Mr. Emil	male	52.0
291	1	1	Taussig, Mrs. Emil (Tillie Mandelbaum)	female	39.0
292	1	1	Taylor, Mr. Elmer Zebley	male	48.0
294	1	0	Thayer, Mr. John Borland	male	49.0
296	1	1	Thayer, Mrs. John Borland (Marian Longstreth M...	female	39.0
299	1	0	Uruchurtu, Don. Manuel E	male	40.0
300	1	0	Van der hoef, Mr. Wyckoff	male	61.0
301	1	0	Walker, Mr. William Anderson	male	47.0
302	1	1	Ward, Miss. Anna	female	35.0
303	1	0	Warren, Mr. Frank Manley	male	64.0
304	1	1	Warren, Mrs. Frank Manley (Anna Sophia Atkinson)	female	60.0
305	1	0	Weir, Col. John	male	60.0
306	1	0	White, Mr. Percival Wayland	male	54.0
308	1	1	White, Mrs. John Stuart (Ella Holmes)	female	55.0
310	1	0	Wick, Mr. George Dennick	male	57.0
311	1	1	Wick, Mrs. George Dennick (Mary Hitchcock)	female	45.0
312	1	0	Widener, Mr. George Dunton	male	50.0
314	1	1	Widener, Mrs. George Dunton (Eleanor Elkins)	female	50.0
316	1	0	Williams, Mr. Charles Duane	male	51.0
321	1	0	Wright, Mr. George	male	62.0
322	1	1	Young, Miss. Marie Grice	female	36.0
329	2	1	Angle, Mrs. William A (Florence "Mary" Agnes H...	female	36.0
330	2	0	Ashby, Mr. John	male	57.0
333	2	1	Ball, Mrs. (Ada E Hall)	female	36.0
335	2	0	Bateman, Rev. Robert James	male	51.0
342	2	1	Becker, Mrs. Allen Oliver (Nellie E Baumgardner)	female	36.0
347	2	0	Bowenur, Mr. Solomon	male	42.0
351	2	0	Brown, Mr. Thomas William Solomon	male	60.0
352	2	1	Brown, Mrs. Thomas William Solomon (Elizabeth ...	female	40.0
355	2	1	Buss, Miss. Kate	female	36.0
357	2	0	Byles, Rev. Thomas Roussel Davids	male	42.0
358	2	1	Bystrom, Mrs. (Karolina)	female	42.0
362	2	1	Cameron, Miss. Clear Annie	female	35.0
365	2	0	Carter, Mrs. Ernest Courtenay (Lilian Hughes)	female	44.0
366	2	0	Carter, Rev. Ernest Courtenay	male	54.0
367	2	0	Chapman, Mr. Charles Henry	male	52.0
368	2	0	Chapman, Mr. John Henry	male	37.0

	pclass	survived	name	sex	age
371	2	1	Christy, Mrs. (Alice Frances)	female	45.0
387	2	1	Davies, Mrs. John Morgan (Elizabeth Agnes Mary...	female	48.0
397	2	0	Downton, Mr. William James	male	54.0
399	2	0	Drew, Mr. James Vivian	male	42.0
406	2	0	Faunthorpe, Mr. Harry	male	40.0
409	2	0	Fox, Mr. Stanley Hubert	male	36.0
411	2	0	Funk, Miss. Annie Clemmer	female	38.0
412	2	0	Fynney, Mr. Joseph J	male	35.0
413	2	0	Gale, Mr. Harry	male	38.0
418	2	0	Gilbert, Mr. William	male	47.0
425	2	0	Greenberg, Mr. Samuel	male	52.0
429	2	0	Harbeck, Mr. William H	male	44.0
432	2	1	Harris, Mr. George	male	62.0
435	2	0	Hart, Mr. Benjamin	male	43.0
436	2	1	Hart, Mrs. Benjamin (Esther Ada Bloomfield)	female	45.0
439	2	0	Herman, Mr. Samuel	male	49.0
440	2	1	Herman, Mrs. Samuel (Jane Laver)	female	48.0
441	2	1	Hewlett, Mrs. (Mary D Kingcome)	female	55.0
448	2	0	Hocking, Mr. Samuel James Metcalfe	male	36.0
449	2	1	Hocking, Mrs. Elizabeth (Eliza Needs)	female	54.0
450	2	0	Hodges, Mr. Henry Price	male	50.0
451	2	0	Hold, Mr. Stephen	male	44.0
454	2	1	Hosono, Mr. Masabumi	male	42.0
455	2	0	Howard, Mr. Benjamin	male	63.0
456	2	0	Howard, Mrs. Benjamin (Ellen Truelove Arman)	female	60.0
459	2	0	Jacobsohn, Mr. Sidney Samuel	male	42.0
461	2	0	Jarvis, Mr. John Denzil	male	47.0
470	2	0	Keane, Mr. Daniel	male	35.0
471	2	1	Kelly, Mrs. Florence "Fannie"	female	45.0
472	2	0	Kirkland, Rev. Charles Leonard	male	57.0
485	2	0	Levy, Mr. Rene Jacques	male	36.0
487	2	0	Lingane, Mr. John	male	61.0
488	2	0	Louch, Mr. Charles Alexander	male	50.0
489	2	1	Louch, Mrs. Charles Alexander (Alice Adelaide ...	female	42.0
490	2	0	Mack, Mrs. (Mary)	female	57.0
497	2	0	Maybery, Mr. Frank Hubert	male	40.0
500	2	0	McKane, Mr. Peter David	male	46.0
502	2	1	Mellinger, Mrs. (Elizabeth Anne Maidment)	female	41.0
504	2	0	Meyer, Mr. August	male	39.0

	pclass	survived	name	sex	age
505	2	0	Milling, Mr. Jacob Christian	male	48.0
506	2	0	Mitchell, Mr. Henry Michael	male	70.0
508	2	0	Moraweck, Dr. Ernest	male	54.0
509	2	0	Morley, Mr. Henry Samuel ("Mr Henry Marshall")	male	39.0
511	2	0	Myles, Mr. Thomas Francis	male	62.0
516	2	0	Navratil, Mr. Michel ("Louis M Hoffman")	male	36.5
522	2	0	Otter, Mr. Richard	male	39.0
529	2	1	Parrish, Mrs. (Lutie Davis)	female	50.0
532	2	0	Peruschitz, Rev. Joseph Maria	male	41.0
535	2	0	Phillips, Mr. Escott Robert	male	43.0
543	2	0	Reeves, Mr. David	male	36.0
551	2	1	Ridsdale, Miss. Lucy	female	50.0
561	2	0	Sjostedt, Mr. Ernst Adolf	male	59.0
563	2	0	Slemen, Mr. Richard James	male	35.0
564	2	1	Smith, Miss. Marion Elsie	female	40.0
566	2	0	Stanton, Mr. Samuel Ward	male	41.0
570	2	1	Toomey, Miss. Ellen	female	50.0
576	2	0	Veal, Mr. James	male	40.0
583	2	1	Watt, Mrs. James (Elizabeth "Bessie" Inglis Mi...	female	40.0
592	2	0	West, Mr. Edwy Arthur	male	36.0
594	2	0	Wheadon, Mr. Edward H	male	66.0
600	3	0	Abbing, Mr. Anthony	male	42.0
603	3	1	Abbott, Mrs. Stanton (Rosa Hunt)	female	35.0
610	3	0	Ahlin, Mrs. Johan (Johanna Persdotter Larsson)	female	40.0
618	3	0	Allen, Mr. William Henry	male	35.0
626	3	0	Andersson, Miss. Ida Augusta Margareta	female	38.0
629	3	0	Andersson, Mr. Anders Johan	male	39.0
632	3	0	Andersson, Mrs. Anders Johan (Alfrida Konstant...	female	39.0
638	3	0	Asim, Mr. Adola	male	35.0
644	3	0	Asplund, Mr. Carl Oscar Vilhelm Gustafsson	male	40.0
646	3	1	Asplund, Mrs. Carl Oscar (Selma Augusta Emilia...	female	38.0
647	3	1	Assaf Khalil, Mrs. Mariana ("Miriam")	female	45.0
662	3	0	Badt, Mr. Mohamed	male	40.0
666	3	0	Barbara, Mrs. (Catherine David)	female	45.0
683	3	0	Bourke, Mr. John	male	40.0
691	3	0	Brocklebank, Mr. William Alfred	male	35.0
699	3	0	Cacic, Mr. Luka	male	38.0
710	3	0	Carr, Miss. Jeannie	female	37.0
721	3	0	Coleff, Mr. Peju	male	36.0

	pclass	survived	name	sex	age
727	3	0	Connors, Mr. Patrick	male	70.5
728	3	0	Cook, Mr. Jacob	male	43.0
729	3	0	Cor, Mr. Bartol	male	35.0
735	3	1	Coutts, Mrs. William (Winnie "Minnie" Treanor)	female	36.0
736	3	0	Coxon, Mr. Daniel	male	59.0
739	3	0	Cribb, Mr. John Hatfield	male	44.0
742	3	1	Dahl, Mr. Karl Edwart	male	45.0
758	3	1	de Messemaeker, Mr. Guillaume Joseph	male	36.5
759	3	1	de Messemaeker, Mrs. Guillaume Joseph (Emma)	female	36.0
770	3	0	Dennis, Mr. William	male	36.0
773	3	0	Dimic, Mr. Jovan	male	42.0
774	3	0	Dintcheff, Mr. Valtcho	male	43.0
782	3	0	Duane, Mr. Frank	male	65.0
788	3	0	Ekstrom, Mr. Johan	male	45.0
790	3	0	Elias, Mr. Joseph	male	39.0
793	3	0	Elsbury, Mr. William James	male	47.0
796	3	0	Everett, Mr. Thomas James	male	40.5
797	3	0	Farrell, Mr. James	male	40.5
811	3	0	Ford, Mrs. Edward (Margaret Ann Watson)	female	48.0
822	3	0	Goldsmith, Mr. Nathan	male	41.0
824	3	0	Goncalves, Mr. Manuel Estanslas	male	38.0
831	3	0	Goodwin, Mr. Charles Frederick	male	40.0
832	3	0	Goodwin, Mrs. Frederick (Augusta Tyler)	female	43.0
833	3	0	Green, Mr. George Henry	male	51.0
837	3	0	Gustafsson, Mr. Anders Vilhelm	male	37.0
848	3	0	Hansen, Mr. Claus Peter	male	41.0
851	3	1	Hansen, Mrs. Claus Peter (Jennie L Howard)	female	45.0
868	3	0	Holm, Mr. John Fredrik Alexander	male	43.0
873	3	0	Humblen, Mr. Adolf Mathias Nicolai Olsen	male	42.0
884	3	0	Jensen, Mr. Niels Peder	male	48.0
896	3	0	Johnson, Mr. Alfred	male	49.0
917	3	1	Karun, Mr. Franz	male	39.0
925	3	0	Kelly, Mr. James	male	44.0
939	3	0	Klasen, Mrs. (Hulda Kristina Eugenia Lofqvist)	female	36.0
943	3	0	Laitinen, Miss. Kristina Sofia	female	37.0
963	3	0	Leonard, Mr. Lionel	male	36.0
964	3	0	Lester, Mr. James	male	39.0
967	3	0	Lindblom, Miss. Augusta Charlotta	female	45.0
968	3	0	Lindell, Mr. Edvard Bengtsson	male	36.0

	pclass	survived	name	sex	age
979	3	0	Lundahl, Mr. Johan Svensson	male	51.0
995	3	0	Markoff, Mr. Marin	male	35.0
1008	3	0	McGowan, Miss. Katherine	female	35.0
1015	3	0	Meo, Mr. Alfonzo	male	55.5
1063	3	0	Nirva, Mr. Iisakki Antino Aijo	male	41.0
1064	3	1	Niskanen, Mr. Juha	male	39.0
1068	3	0	Nysveen, Mr. Johan Hansen	male	61.0
1084	3	0	Olsen, Mr. Karl Siegwart Andreas	male	42.0
1106	3	0	Panula, Mrs. Juha (Maria Emilia Ojala)	female	41.0
1139	3	0	Rekic, Mr. Tido	male	38.0
1146	3	0	Rice, Mrs. William (Margaret Norton)	female	39.0
1148	3	0	Rintamaki, Mr. Matti	male	35.0
1152	3	0	Robins, Mr. Alexander A	male	50.0
1153	3	0	Robins, Mrs. Alexander A (Grace Charity Laury)	female	47.0
1158	3	0	Rosblom, Mrs. Viktor (Helena Wilhelmina)	female	41.0
1160	3	0	Rouse, Mr. Richard Henry	male	50.0
1169	3	0	Saether, Mr. Simon Sivertsen	male	38.5
1183	3	0	Salonen, Mr. Johan Werner	male	39.0
1203	3	0	Sivic, Mr. Husein	male	40.0
1210	3	0	Skoog, Mr. Wilhelm	male	40.0
1211	3	0	Skoog, Mrs. William (Anna Bernhardina Karlsson)	female	45.0
1225	3	0	Storey, Mr. Thomas	male	60.5
1233	3	1	Sundman, Mr. Johan Julian	male	44.0
1235	3	0	Svensson, Mr. Johan	male	74.0
1252	3	0	Torber, Mr. Ernst William	male	44.0
1259	3	0	Turcin, Mr. Stjepan	male	36.0
1261	3	1	Turkula, Mrs. (Hedwig)	female	63.0
1264	3	0	van Billiard, Mr. Austin Blyler	male	40.5
1266	3	0	Van Impe, Mr. Jean Baptiste	male	36.0
1272	3	0	Vander Cruyssen, Mr. Victor	male	47.0
1286	3	1	Whabee, Mrs. George Joseph (Shawneene Abi-Saab)	female	38.0
1287	3	0	Widegren, Mr. Carl/Charles Peter	male	51.0
1290	3	1	Wilkes, Mrs. James (Ellen Needs)	female	47.0
1298	3	0	Wittevrongel, Mr. Camille	male	36.0
1301	3	0	Youseff, Mr. Gerious	male	45.5

In [ ]:

```
titanic.loc[(titanic['age']>=35)&(titanic['sex']=='female')]
```

Out[ ]:

	pclass	survived	name	sex	age	sibsp	parch	ticket	fare	cabin	embarked
6	1	1	Andrews, Miss. Kornelia Theodosia	female	63.0	1	0	13502	77.9583	D7	S