

```

> View(mtcars)
> mtcars_cat <- mtcars[c(2,8,9,10,11)]
> library(tidyr)
> gather(mtcars_cat)

```

	key	value
1	cyl	6
2	cyl	6
3	cyl	4
4	cyl	6
5	cyl	8
6	cyl	6
7	cyl	8
8	cyl	4
9	cyl	4
10	cyl	6
11	cyl	6
12	cyl	8
13	cyl	8
14	cyl	8
15	cyl	8
16	cyl	8
17	cyl	8
18	cyl	4
19	cyl	4
20	cyl	4
21	cyl	4
22	cyl	8
23	cyl	8
24	cyl	8
25	cyl	8
26	cyl	4
27	cyl	4
28	cyl	4
29	cyl	8
30	cyl	6
31	cyl	8
32	cyl	4
33	vs	0
34	vs	0
35	vs	1
36	vs	1
37	vs	0
38	vs	1
39	vs	0
40	vs	1
41	vs	1
42	vs	1
43	vs	1
44	vs	0
45	vs	0
46	vs	0
47	vs	0
48	vs	0
49	vs	0
50	vs	1
51	vs	1
52	vs	1
53	vs	1
54	vs	0
55	vs	0
56	vs	0
57	vs	0
58	vs	1

59	vs	0
60	vs	1
61	vs	0
62	vs	0
63	vs	0
64	vs	1
65	am	1
66	am	1
67	am	1
68	am	0
69	am	0
70	am	0
71	am	0
72	am	0
73	am	0
74	am	0
75	am	0
76	am	0
77	am	0
78	am	0
79	am	0
80	am	0
81	am	0
82	am	1
83	am	1
84	am	1
85	am	0
86	am	0
87	am	0
88	am	0
89	am	0
90	am	1
91	am	1
92	am	1
93	am	1
94	am	1
95	am	1
96	am	1
97	gear	4
98	gear	4
99	gear	4
100	gear	3
101	gear	3
102	gear	3
103	gear	3
104	gear	4
105	gear	4
106	gear	4
107	gear	4
108	gear	3
109	gear	3
110	gear	3
111	gear	3
112	gear	3
113	gear	3
114	gear	4
115	gear	4
116	gear	4
117	gear	3
118	gear	3
119	gear	3
120	gear	3
121	gear	3

```

122 gear      4
123 gear      5
124 gear      5
125 gear      5
126 gear      5
127 gear      5
128 gear      4
129 carb      4
130 carb      4
131 carb      1
132 carb      1
133 carb      2
134 carb      1
135 carb      4
136 carb      2
137 carb      2
138 carb      4
139 carb      4
140 carb      3
141 carb      3
142 carb      3
143 carb      4
144 carb      4
145 carb      4
146 carb      1
147 carb      2
148 carb      1
149 carb      1
150 carb      2
151 carb      2
152 carb      4
153 carb      2
154 carb      1
155 carb      2
156 carb      2
157 carb      4
158 carb      6
159 carb      8
160 carb      2
> library(ggplot2)
> ggplot(gather(mtcars_cat), aes(value)) + geom_bar()+facet_wrap(~key, scales
= 'free_x')
> pairs(~gear+mpg+cyl+disp+hp,mtcars)
> pairs(~gear+drat+wt+qsec+vs,mtcars)
> pairs(~gear+am+carb,mtcars)
> #. Write a program to create a plot density by class variable.
> library(ggplot2)
> library(tidyr)
> ggplot(gather(mtcars), aes(value)) + geom_density(fill="cyan")+facet_wrap(~
key, scales = 'free_x')

```