```
 1 C:\Users\nguye\.virtualenvs\lab4_clustering\Scripts\
   python.exe "C:/Users/nguye/OneDrive/Documents/
   HpSepctrex360/GeneralClassDownloads/CSC 466/
   lab4_clustering/clustering/hclustering.py" ./data/
   AccidentsSet01.csv 0
 2 Cluster 0:
 3 2 points:
 4 Point: 6    VE_TOTAL   PERSONS   FATALS
 5 6       1.0  0.444444    0.0
 6 Point: 8    VE_TOTAL   PERSONS   FATALS
 7 8       1.0  0.388889    0.0
 8 Cluster 1:
 9 3 points:
10 Point: 9    VE_TOTAL   PERSONS   FATALS
11 9       1.0  0.388889    0.0
12 Point: 6    VE_TOTAL   PERSONS   FATALS
13 6       1.0  0.444444    0.0
14 Point: 8    VE_TOTAL   PERSONS   FATALS
15 8       1.0  0.388889    0.0
16 Cluster 2:
17 4 points:
18 Point: 7    VE_TOTAL   PERSONS   FATALS
19 7       1.0  0.444444    0.0
20 Point: 9    VE_TOTAL   PERSONS   FATALS
21 9       1.0  0.388889    0.0
22 Point: 6    VE_TOTAL   PERSONS   FATALS
23 6       1.0  0.444444    0.0
24 Point: 8    VE_TOTAL   PERSONS   FATALS
25 8       1.0  0.388889    0.0
26 Cluster 3:
27 2 points:
28 Point: 12    VE_TOTAL  PERSONS   FATALS
29 12      0.25      0.0     0.0
30 Point: 15    VE_TOTAL   PERSONS  FATALS
31 15      0.25  0.055556    0.0
32 Cluster 4:
33 2 points:
34 Point: 1    VE_TOTAL   PERSONS   FATALS
35 1       1.0  0.777778    0.0
36 Point: 2    VE_TOTAL   PERSONS   FATALS
37 2       1.0  0.722222    0.0
```

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38 Cluster 5:
39 2 points:
40 Point: 3     VE_TOTAL   PERSONS   FATALS
41 3          1.0  0.611111     0.0
42 Point: 4     VE_TOTAL   PERSONS   FATALS
43 4          1.0  0.555556     0.0
44 Cluster 6:
45 5 points:
46 Point: 5     VE_TOTAL   PERSONS   FATALS
47 5          1.0       0.5     0.0
48 Point: 7     VE_TOTAL   PERSONS   FATALS
49 7          1.0  0.444444     0.0
50 Point: 9     VE_TOTAL   PERSONS   FATALS
51 9          1.0  0.388889     0.0
52 Point: 6     VE_TOTAL   PERSONS   FATALS
53 6          1.0  0.444444     0.0
54 Point: 8     VE_TOTAL   PERSONS   FATALS
55 8          1.0  0.388889     0.0
56 Cluster 7:
57 2 points:
58 Point: 13     VE_TOTAL    PERSONS     FATALS
59 13       0.25  0.055556  0.333333
60 Point: 16     VE_TOTAL    PERSONS     FATALS
61 16       0.25  0.166667  0.333333
62 Cluster 8:
63 3 points:
64 Point: 14     VE_TOTAL    PERSONS     FATALS
65 14       0.25  0.055556  0.333333
66 Point: 13     VE_TOTAL    PERSONS     FATALS
67 13       0.25  0.055556  0.333333
68 Point: 16     VE_TOTAL    PERSONS     FATALS
69 16       0.25  0.166667  0.333333
70 Cluster 9:
71 7 points:
72 Point: 3     VE_TOTAL   PERSONS   FATALS
73 3          1.0  0.611111     0.0
74 Point: 4     VE_TOTAL   PERSONS   FATALS
75 4          1.0  0.555556     0.0
76 Point: 5     VE_TOTAL  PERSONS  FATALS
77 5          1.0       0.5     0.0
78 Point: 7     VE_TOTAL    PERSONS   FATALS
```

```
 79 7         1.0  0.444444      0.0
 80 Point: 9    VE_TOTAL   PERSONS   FATALS
 81 9         1.0  0.388889      0.0
 82 Point: 6    VE_TOTAL   PERSONS   FATALS
 83 6         1.0  0.444444      0.0
 84 Point: 8    VE_TOTAL   PERSONS   FATALS
 85 8         1.0  0.388889      0.0
 86 Cluster 10:
 87 3 points:
 88 Point: 17    VE_TOTAL   PERSONS   FATALS
 89 17       0.25  0.166667      0.0
 90 Point: 12    VE_TOTAL   PERSONS   FATALS
 91 12       0.25     0.0      0.0
 92 Point: 15    VE_TOTAL   PERSONS   FATALS
 93 15       0.25  0.055556      0.0
 94 Cluster 11:
 95 8 points:
 96 Point: 10    VE_TOTAL   PERSONS   FATALS
 97 10        1.0  0.333333      0.0
 98 Point: 3   VE_TOTAL   PERSONS   FATALS
 99 3         1.0  0.611111      0.0
100 Point: 4    VE_TOTAL   PERSONS   FATALS
101 4         1.0  0.555556      0.0
102 Point: 5   VE_TOTAL  PERSONS   FATALS
103 5         1.0      0.5      0.0
104 Point: 7   VE_TOTAL   PERSONS   FATALS
105 7         1.0  0.444444      0.0
106 Point: 9    VE_TOTAL   PERSONS   FATALS
107 9         1.0  0.388889      0.0
108 Point: 6    VE_TOTAL   PERSONS   FATALS
109 6         1.0  0.444444      0.0
110 Point: 8    VE_TOTAL   PERSONS   FATALS
111 8         1.0  0.388889      0.0
112 Cluster 12:
113 4 points:
114 Point: 0   VE_TOTAL  PERSONS   FATALS
115 0         0.0      0.0      0.0
116 Point: 17    VE_TOTAL   PERSONS   FATALS
117 17       0.25  0.166667      0.0
118 Point: 12    VE_TOTAL   PERSONS   FATALS
119 12       0.25     0.0      0.0
```

```
120 Point: 15     VE_TOTAL   PERSONS   FATALS
121 15       0.25  0.055556     0.0
122 Cluster 13:
123 10 points:
124 Point: 1     VE_TOTAL   PERSONS   FATALS
125 1       1.0  0.777778     0.0
126 Point: 2     VE_TOTAL   PERSONS   FATALS
127 2       1.0  0.722222     0.0
128 Point: 10     VE_TOTAL   PERSONS   FATALS
129 10       1.0  0.333333     0.0
130 Point: 3     VE_TOTAL   PERSONS   FATALS
131 3       1.0  0.611111     0.0
132 Point: 4     VE_TOTAL   PERSONS   FATALS
133 4       1.0  0.555556     0.0
134 Point: 5     VE_TOTAL  PERSONS   FATALS
135 5       1.0     0.5     0.0
136 Point: 7     VE_TOTAL   PERSONS   FATALS
137 7       1.0  0.444444     0.0
138 Point: 9     VE_TOTAL   PERSONS   FATALS
139 9       1.0  0.388889     0.0
140 Point: 6     VE_TOTAL   PERSONS   FATALS
141 6       1.0  0.444444     0.0
142 Point: 8     VE_TOTAL   PERSONS   FATALS
143 8       1.0  0.388889     0.0
144 Cluster 14:
145 2 points:
146 Point: 18     VE_TOTAL   PERSONS    FATALS
147 18      0.25  0.222222  0.666667
148 Point: 19     VE_TOTAL   PERSONS   FATALS
149 19      0.25  0.222222     1.0
150 Cluster 15:
151 7 points:
152 Point: 14     VE_TOTAL   PERSONS    FATALS
153 14      0.25  0.055556  0.333333
154 Point: 13     VE_TOTAL   PERSONS    FATALS
155 13      0.25  0.055556  0.333333
156 Point: 16     VE_TOTAL   PERSONS    FATALS
157 16      0.25  0.166667  0.333333
158 Point: 0     VE_TOTAL  PERSONS  FATALS
159 0       0.0     0.0     0.0
160 Point: 17     VE_TOTAL   PERSONS   FATALS
```

```
161 17        0.25  0.166667      0.0
162 Point: 12       VE_TOTAL  PERSONS   FATALS
163 12        0.25      0.0      0.0
164 Point: 15       VE_TOTAL   PERSONS  FATALS
165 15        0.25  0.055556      0.0
166 Cluster 16:
167 9 points:
168 Point: 18       VE_TOTAL   PERSONS    FATALS
169 18        0.25  0.222222  0.666667
170 Point: 19       VE_TOTAL   PERSONS  FATALS
171 19        0.25  0.222222      1.0
172 Point: 14       VE_TOTAL   PERSONS    FATALS
173 14        0.25  0.055556  0.333333
174 Point: 13       VE_TOTAL   PERSONS    FATALS
175 13        0.25  0.055556  0.333333
176 Point: 16       VE_TOTAL   PERSONS    FATALS
177 16        0.25  0.166667  0.333333
178 Point: 0    VE_TOTAL  PERSONS   FATALS
179 0         0.0      0.0      0.0
180 Point: 17       VE_TOTAL   PERSONS  FATALS
181 17        0.25  0.166667      0.0
182 Point: 12       VE_TOTAL  PERSONS   FATALS
183 12        0.25      0.0      0.0
184 Point: 15       VE_TOTAL   PERSONS  FATALS
185 15        0.25  0.055556      0.0
186 Cluster 17:
187 10 points:
188 Point: 11       VE_TOTAL  PERSONS    FATALS
189 11        0.25      1.0  0.333333
190 Point: 18       VE_TOTAL   PERSONS    FATALS
191 18        0.25  0.222222  0.666667
192 Point: 19       VE_TOTAL   PERSONS  FATALS
193 19        0.25  0.222222      1.0
194 Point: 14       VE_TOTAL   PERSONS    FATALS
195 14        0.25  0.055556  0.333333
196 Point: 13       VE_TOTAL   PERSONS    FATALS
197 13        0.25  0.055556  0.333333
198 Point: 16       VE_TOTAL   PERSONS    FATALS
199 16        0.25  0.166667  0.333333
200 Point: 0    VE_TOTAL  PERSONS   FATALS
201 0         0.0      0.0      0.0
```

```
202 Point: 17      VE_TOTAL   PERSONS   FATALS
203 17       0.25  0.166667     0.0
204 Point: 12      VE_TOTAL   PERSONS   FATALS
205 12       0.25     0.0      0.0
206 Point: 15      VE_TOTAL   PERSONS   FATALS
207 15       0.25  0.055556     0.0
208 Cluster 18:
209 20 points:
210 Point: 1    VE_TOTAL   PERSONS   FATALS
211 1       1.0  0.777778     0.0
212 Point: 2    VE_TOTAL   PERSONS   FATALS
213 2       1.0  0.722222     0.0
214 Point: 10     VE_TOTAL   PERSONS   FATALS
215 10      1.0  0.333333     0.0
216 Point: 3    VE_TOTAL   PERSONS   FATALS
217 3       1.0  0.611111     0.0
218 Point: 4    VE_TOTAL   PERSONS   FATALS
219 4       1.0  0.555556     0.0
220 Point: 5    VE_TOTAL  PERSONS   FATALS
221 5       1.0     0.5      0.0
222 Point: 7    VE_TOTAL   PERSONS   FATALS
223 7       1.0  0.444444     0.0
224 Point: 9    VE_TOTAL   PERSONS   FATALS
225 9       1.0  0.388889     0.0
226 Point: 6    VE_TOTAL   PERSONS   FATALS
227 6       1.0  0.444444     0.0
228 Point: 8    VE_TOTAL   PERSONS   FATALS
229 8       1.0  0.388889     0.0
230 Point: 11     VE_TOTAL   PERSONS    FATALS
231 11      0.25     1.0  0.333333
232 Point: 18     VE_TOTAL   PERSONS    FATALS
233 18      0.25  0.222222  0.666667
234 Point: 19     VE_TOTAL   PERSONS   FATALS
235 19      0.25  0.222222     1.0
236 Point: 14     VE_TOTAL   PERSONS    FATALS
237 14      0.25  0.055556  0.333333
238 Point: 13     VE_TOTAL   PERSONS    FATALS
239 13      0.25  0.055556  0.333333
240 Point: 16     VE_TOTAL   PERSONS    FATALS
241 16      0.25  0.166667  0.333333
242 Point: 0    VE_TOTAL  PERSONS  FATALS
```

```
243 0          0.0        0.0       0.0
244 Point: 17      VE_TOTAL   PERSONS  FATALS
245 17       0.25  0.166667     0.0
246 Point: 12      VE_TOTAL   PERSONS  FATALS
247 12       0.25      0.0       0.0
248 Point: 15      VE_TOTAL   PERSONS  FATALS
249 15       0.25  0.055556     0.0
250
251 Process finished with exit code 0
252
```