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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/
  mammal_milk.csv 0.41454039656418273
2      Water      Protein      Fat      Lactose      Ash
3 5      1.000000      0.000000      0.085366      0.637681      0.000000
4 1      0.996644      0.170940      0.000000      1.000000      0.113636
5 13     0.995526      0.119658      0.019512      0.797101      0.168182
6 4      0.998881      0.094017      0.009756      0.898551      0.136364
7 2      0.978747      0.068376      0.060976      0.869565      0.063636
8 3      0.977629      0.136752      0.041463      0.927536      0.036364
9 18     0.779642      0.256410      0.404878      0.811594      0.240909
10 11     0.901566      0.512821      0.119512      0.710145      0.377273
11 8      0.907159      0.452991      0.168293      0.681159      0.309091
12 16     0.906040      0.427350      0.131707      0.681159      0.368182
13 6      0.969799      0.247863      0.058537      0.695652      0.277273
14 15     0.953020      0.205128      0.092683      0.768116      0.272727
15 7      0.960850      0.358974      0.017073      0.826087      0.363636
16 12     0.956376      0.282051      0.053659      0.811594      0.318182
17
18      Water      Protein      Fat      Lactose      Ash
19 0      0.0      0.034188      0.0      0.144928      0.409091
20
21      Water      Protein      Fat      Lactose      Ash
22 24     0.507830      0.777778      1.000000      0.000000      0.340909
23 25     0.491051      0.854701      0.826829      0.130435      0.195455
24
25      Water      Protein      Fat      Lactose      Ash
26 19     0.786353      1.0      0.295122      0.275362      1.0
27
28      Water      Protein      Fat      Lactose      Ash
29 23     0.713647      0.897436      0.492683      0.231884      0.340909
30 21     0.725951      0.837607      0.456098      0.376812      0.590909
31 22     0.713647      0.863248      0.470732      0.362319      0.590909
32
33      Water      Protein      Fat      Lactose      Ash
34 10     0.901566      0.811966      0.129268      0.637681      0.295455
35 17     0.842282      0.743590      0.207317      0.434783      0.500000
36 20     0.799776      0.735043      0.282927      0.478261      0.590909
37 9      0.904922      0.581197      0.151220      0.391304      0.340909

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38 14 0.914989 0.555556 0.100000 0.536232 0.454545
39
40 cluster sse: 0.12849467219658464 , cluster length: 6
   threshold: 0.41454039656418273
41
42
43
44 Process finished with exit code 0
45
```