

# COMP37332

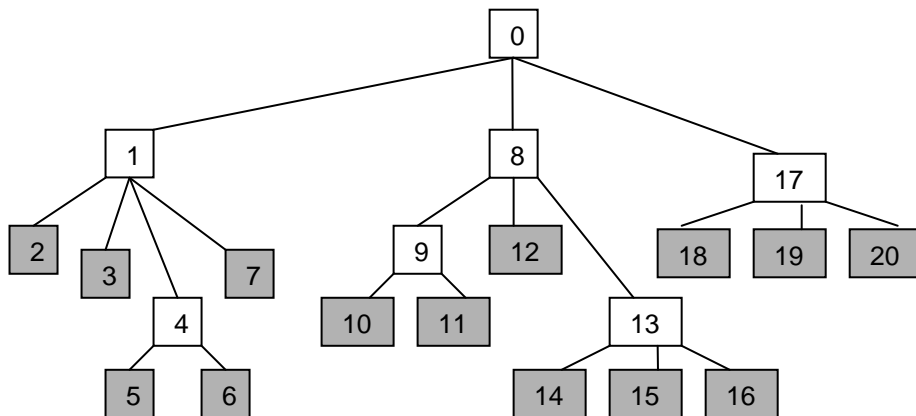
## WEKA: Clustering tutorial

B1. The resulting dendrogram

```

node 0 [14]
| node 1 [5]
| | leaf 2 [1]
| node 1 [5]
| | leaf 3 [1]
| node 1 [5]
| | node 4 [2]
| | | leaf 5 [1]
| | | node 4 [2]
| | | leaf 6 [1]
| node 1 [5]
| | leaf 7 [1]
node 0 [14]
| node 8 [6]
| | node 9 [2]
| | | leaf 10 [1]
| | | node 9 [2]
| | | leaf 11 [1]
| node 8 [6]
| | leaf 12 [1]
| node 8 [6]
| | node 13 [3]
| | | leaf 14 [1]
| | | node 13 [3]
| | | leaf 15 [1]
| | | node 13 [3]
| | | leaf 16 [1]
node 0 [14]
| node 17 [3]
| | leaf 18 [1]
| node 17 [3]
| | leaf 19 [1]
| node 17 [3]
| | leaf 20 [1]

```



**Input data**

@relation weather

@attribute outlook {sunny, overcast, rainy}  
@attribute temperature real  
@attribute humidity real  
@attribute windy {TRUE, FALSE}  
@attribute play {yes, no}

@data

sunny,85,85,FALSE,no  
sunny,80,90,TRUE,no  
overcast,83,86,FALSE,yes  
rainy,70,96,FALSE,yes  
rainy,68,80,FALSE,yes  
rainy,65,70,TRUE,no  
overcast,64,65,TRUE,yes  
sunny,72,95,FALSE,no  
sunny,69,70,FALSE,yes  
rainy,75,80,FALSE,yes  
sunny,75,70,TRUE,yes  
overcast,72,90,TRUE,yes  
overcast,81,75,FALSE,yes  
rainy,71,91,TRUE,no

**Clustered data**

@relation weather\_clustered

@attribute Instance\_number numeric  
@attribute outlook {sunny,overcast,rainy}  
@attribute temperature numeric  
@attribute humidity numeric  
@attribute windy {TRUE,FALSE}  
@attribute play {yes,no}  
@attribute Cluster  
{cluster0,cluster1,cluster2,cluster3,cluster4,cluster5,cluster6,cluster7,cluster8,cluster9,  
cluster10,cluster11,cluster12,cluster13,cluster14,cluster15,cluster16,cluster17,  
cluster18,cluster19,cluster20}

@data

0,sunny,85,85,FALSE,no,cluster5  
1,sunny,80,90,TRUE,no,cluster7  
2,overcast,83,86,FALSE,yes,cluster10  
3,rainy,70,96,FALSE,yes,cluster15  
4,rainy,68,80,FALSE,yes,cluster14  
5,rainy,65,70,TRUE,no,cluster2  
6,overcast,64,65,TRUE,yes,cluster18  
7,sunny,72,95,FALSE,no,cluster6  
8,sunny,69,70,FALSE,yes,cluster16  
9,rainy,75,80,FALSE,yes,cluster12  
10,sunny,75,70,TRUE,yes,cluster19  
11,overcast,72,90,TRUE,yes,cluster20  
12,overcast,81,75,FALSE,yes,cluster11  
13,rainy,71,91,TRUE,no,cluster3

