

(a) Hierarchical clustering using complete linkage

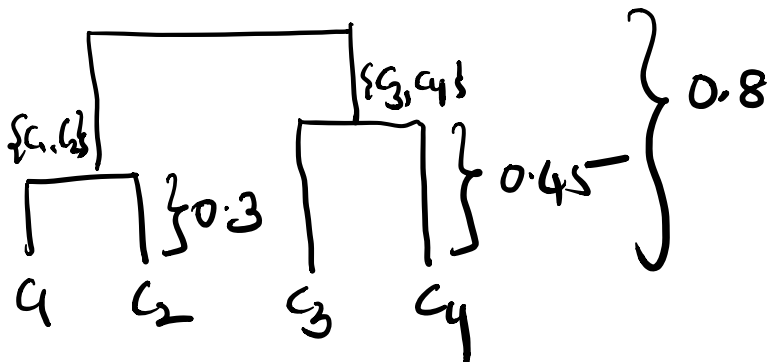
4 clusters -  $C_1, C_2, C_3, C_4$

$C_1 \& C_2 - 0.3$  form a cluster -  $C'$

	$C'$	$C_3$	$C_4$
$C'$	-	0.5	0.8
$C_3$	0.5	-	0.45
$C_4$	0.8	0.45	-

$C_3 \& C_4 - 0.45$  form cluster  $C''$

Now clusters are  $C' \& C'' - 0.8$



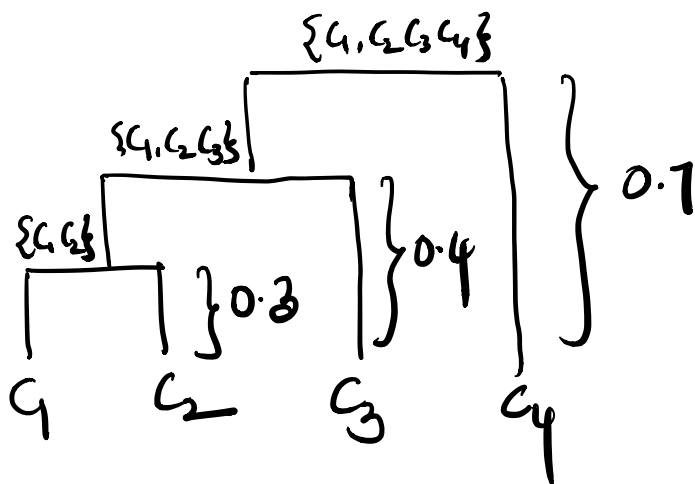
(b) Single linkage clustering

$$C_1 \& C_2 \rightarrow C^1$$

	$C^1$	$C_3$	$C_4$
$C^1$	-	0.4	0.7
$C_3$	0.4	-	0.45
$C_4$	0.7	0.45	-

$$C^1 \& C_3 \rightarrow C''$$

$$C'' \& C_4$$



(c) Results in 2 cluster

Cluster 1  $\{C_1, C_2\}$

Cluster 2  $\{C_3, C_4\}$

(d) 2 clusters

Cluster 1  $\{C_1, C_2, C_3\}$

Cluster 2  $\{C_4\}$

(e)

