

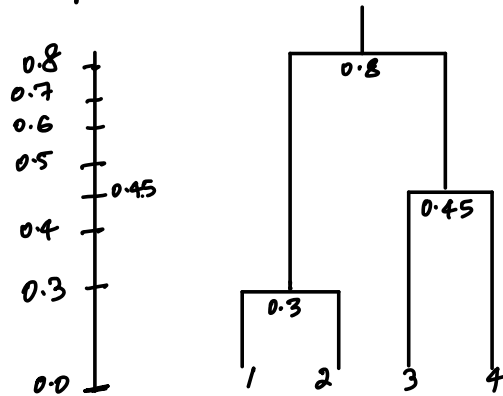
ISLR Q: 12.6.2

Naveen Kumar manjunatha

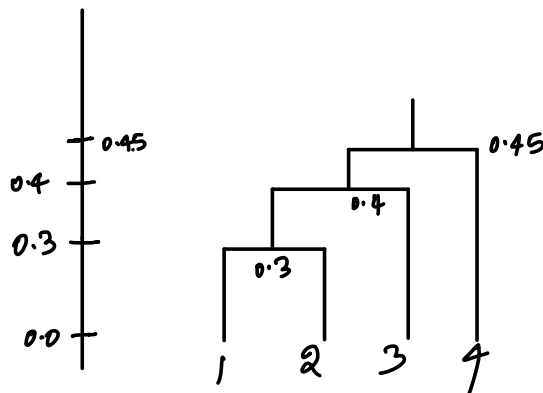
USC ID: 6459055851

a) Dendrogram based on hierarchical Clustering

• Complete Linkage



b) Single Linkage



c) If we cut the dendrogram in part (a) resulting in 2 clusters, the points in each cluster will be:

i) Points 1, 2 — Cluster A

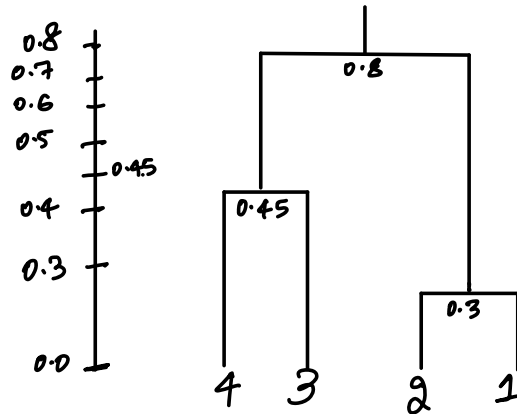
ii) Points 3, 4 — Cluster B

d) If we cut the dendrogram in part (b) resulting in 2 clusters, the points in each cluster will be:

i) Points 1, 2, 3 — Cluster A

ii) Point 4 — Cluster B

c) Repositioned leaves of dendrogram in part (a)



- Swapped 1 & 2 leaves
- Swapped 3 & 4 leaves
- Swapped nodes of (1 & 2) and (3 & 4)