

| | P ₁ | P ₂ | P ₃ | P ₄ | P ₅ | P ₆ |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| P ₁ | 0 | 0.2357 | 0.2218 | 0.3688 | 0.3421 | 0.2347 |
| P ₂ | 0.2357 | 0 | 0.1483 | 0.2042 | 0.1388 | 0.2540 |
| P ₃ | 0.2218 | 0.1483 | 0 | 0.1513 | 0.2843 | 0.1100 |
| P ₄ | 0.3688 | 0.2042 | 0.1513 | 0 | 0.2932 | 0.2216 |
| P ₅ | 0.3421 | 0.1388 | 0.2843 | 0.2932 | 0 | 0.3921 |
| P ₆ | 0.2347 | 0.2540 | 0.1100 | 0.2216 | 0.3921 | 0 |

In Single linkage the distance between two clusters is the minimum distance between the members of two clusters.
 So, here P₃ & P₆ forms the first cluster.

| | P ₁ | P ₂ | P ₃ P ₆ | P ₄ | P ₅ |
|-------------------------------|----------------|----------------|-------------------------------|----------------|----------------|
| P ₁ | 0 | 0.2357 | 0.2218 | 0.3688 | 0.3427 |
| P ₂ | 0.2357 | 0 | 0.1483 | 0.2042 | 0.1308 |
| P ₃ P ₆ | 0.2218 | 0.1483 | 0 | 0.1513 | 0.2843 |
| P ₄ | 0.3688 | 0.2042 | 0.1513 | 0 | 0.2932 |
| P ₅ | 0.3421 | 0.1388 | 0.2843 | 0.2932 | 0 |

So, here $P_2 \& P_5$ forms the Second cluster

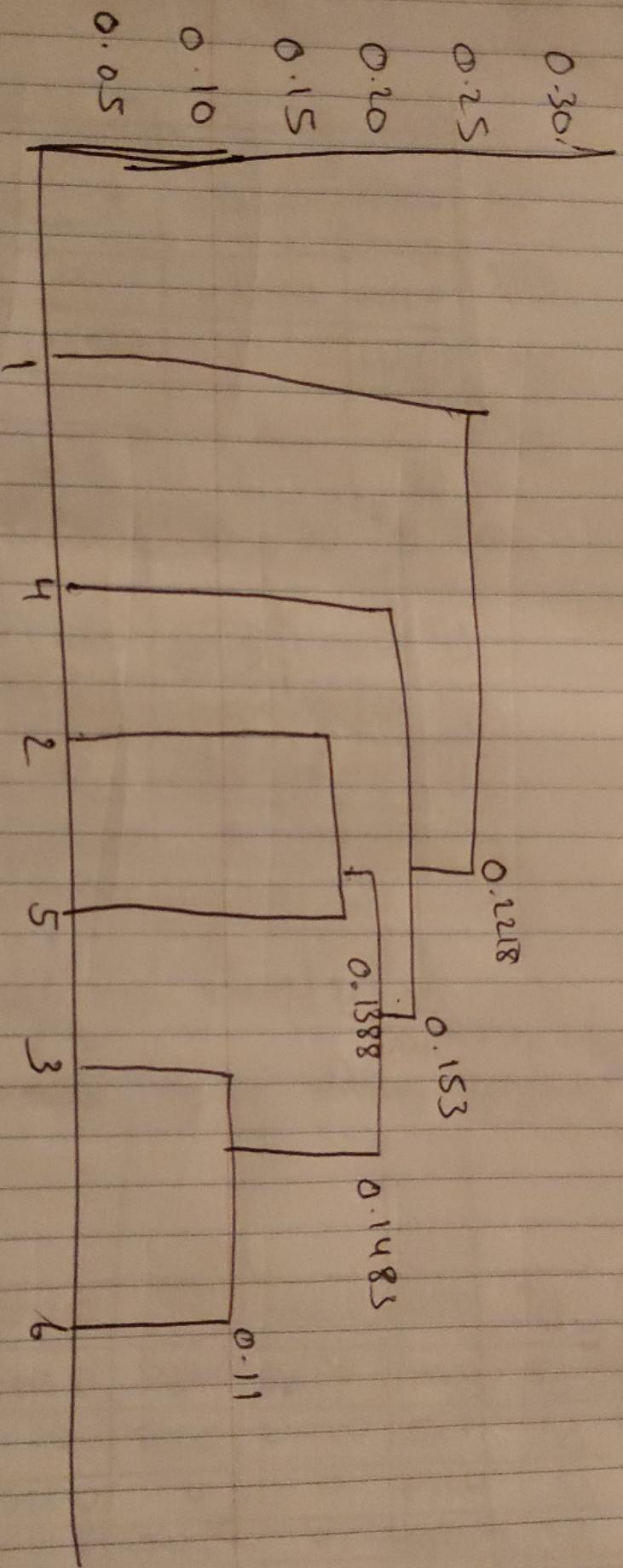
| | P_1 | $P_2 P_5$ | $P_3 P_6$ | P_4 |
|-----------|--------|-----------|-----------|--------|
| P_1 | 0 | 0.2357 | 0.2218 | 0.3688 |
| $P_2 P_5$ | 0.2357 | 0 | 0.1483 | 0.2042 |
| $P_3 P_6$ | 0.2218 | 0.1483 | 0 | 0.1513 |
| P_4 | 0.3688 | 0.2042 | 0.1513 | 0 |

So, here $P_2 P_5 \& P_3 P_6$ forms the third attempt.

| | P_1 | $P_2 P_5 P_3 P_6$ | P_4 |
|-------------------|--------|-------------------|--------|
| P_1 | 0 | 0.2218 | 0.3688 |
| $P_2 P_5 P_3 P_6$ | 0.2218 | 0 | 0.1513 |
| P_4 | 0.3688 | 0.1513 | 0 |

So, here $P_2 P_5 P_3, P_1 \& P_4$ forms the fourth cluster

| | P_1 | $P_2 P_5 P_3 P_6 P_4$ |
|-----------------------|--------|-----------------------|
| P_1 | 0 | 0.2218 |
| $P_2 P_5 P_3 P_6 P_4$ | 0.2218 | 0 |



| | P ₁ | P ₂ | P ₃ | P ₄ | P ₅ | P ₆ |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| P ₁ | 0 | 0.2357 | 0.2218 | 0.3688 | 0.3421 | 0.2347 |
| P ₂ | 0.2357 | 0 | 0.1483 | 0.2042 | 0.1388 | 0.254 |
| P ₃ | 0.2218 | 0.1483 | 0 | 0.1513 | 0.2843 | 0.11 |
| P ₄ | 0.3688 | 0.2042 | 0.1513 | 0 | 0.2932 | 0.2216 |
| P ₅ | 0.3421 | 0.1388 | 0.2843 | 0.2932 | 0 | 0.3921 |
| P ₆ | 0.2347 | 0.254 | 0.11 | 0.2216 | 0.3921 | 0 |

Complete linkage is the maximum distance between the members of two clusters.

Here P₃ & P₆ forms the first cluster

| | P ₁ | P ₂ | P ₃ P ₆ | P ₄ | P ₅ |
|-------------------------------|----------------|----------------|-------------------------------|----------------|----------------|
| P ₁ | 0 | 0.2357 | 0.2347 | 0.3688 | 0.3421 |
| P ₂ | 0.2357 | 0 | 0.254 | 0.2042 | 0.1388 |
| P ₃ P ₆ | 0.2347 | 0.254 | 0 | 0.2216 | 0.3921 |
| P ₄ | 0.3688 | 0.2042 | 0.2216 | 0 | 0.2932 |
| P ₅ | 0.3421 | 0.1388 | 0.3921 | 0.2932 | 0 |

Here P₂, P₅ form the second cluster.

| | P ₁ | P ₂ P ₅ | P ₃ P ₆ | P ₄ |
|-------------------------------|----------------|-------------------------------|-------------------------------|----------------|
| P ₁ | 0 | | | |
| P ₂ P ₅ | 0.3421 | 0 | 0.3921 | 0.2932 |
| P ₃ P ₆ | 0.2347 | 0.3921 | 0 | 0.2216 |
| P ₄ | 0.3688 | 0.2932 | 0.2216 | 0 |

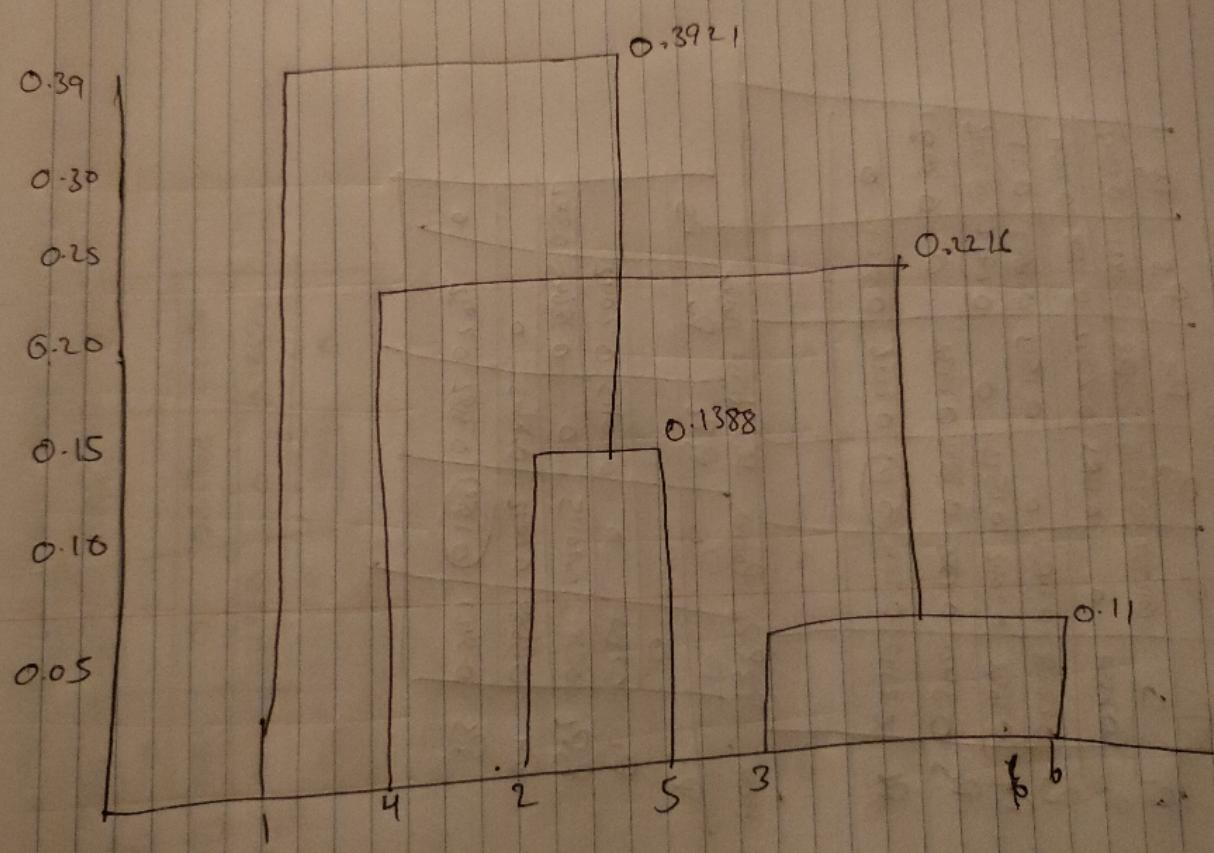
Here $P_3 P_6 \wedge P_4$ forms third Cluster

| | P_1 | $P_2 P_5$ | $P_3 P_6 P_4$ |
|-----------|--------|-----------|---------------|
| P_1 | 0 | 0.3421 | 0.3688 |
| $P_2 P_5$ | 0.3421 | 0 | 0.3921 |
| | 0.3688 | 0.3921 | 0 |

Here $P_1 \wedge P_2 \wedge P_5$ forms fourth Cluster

| $P_1 \wedge P_5$ | $P_3 P_6 P_4$ |
|------------------|---------------|
| 0 | 0.39281 |
| 0.33121 | 0 |

Complete link priority



In Average Link Priority we use to average of the distance between members of two clusters

| | P ₁ | P ₂ | P ₃ | P ₄ | P ₅ | P ₆ |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| P ₁ | 0 | 0.2357 | 0.2218 | 0.3688 | 0.3421 | 0.2342 |
| P ₂ | 0.2357 | 0 | 0.1483 | 0.2042 | 0.1388 | 0.254 |
| P ₃ | 0.2218 | 0.1483 | 0 | 0.1513 | 0.2843 | 0.11 |
| P ₄ | 0.3688 | 0.2042 | 0.1513 | 0 | 0.2932 | 0.2216 |
| P ₅ | 0.3421 | 0.1388 | 0.2843 | 0.2932 | 0 | 0.3921 |
| P ₆ | 0.2342 | 0.254 | (0.11) | 0.2216 | 0.3921 | 0 |

Here P₃ & P₆ forms the first cluster

| | P ₁ | P ₂ | P ₃ P ₆ | P ₄ | P ₅ |
|-------------------------------|----------------|----------------|-------------------------------|----------------|----------------|
| P ₁ | 0 | | | | |
| P ₂ | 0.2357 | 0 | 0.20115 | 0.2042 | |
| P ₃ P ₆ | 0.22825 | 0.20115 | 0 | 0.18645 | 0.3782 |
| P ₄ | 0.3688 | 0.2042 | 0.18645 | 0 | |
| P ₅ | 0.3421 | (0.1388) | 0.3382 | 0.2932 | 0 |

Here P_2 & P_5 forms the Second Cluster

| | P_1 | $P_2 P_5$ | $P_3 P_6$ | P_4 |
|-----------|--------|-----------|-----------|---------|
| P_1 | 0 | | | |
| $P_2 P_5$ | 0.2889 | 0 | 0.269675 | 0.2487 |
| $P_3 P_6$ | 0.2282 | 0.269675 | 0 | 0.18675 |
| P_4 | 0.3421 | 0.2487 | 0.18645 | 0 |

Here $P_3 P_6$ & P_4 will form a cluster

| | P_1 | $P_2 P_5$ | $P_3 P_6 P_4$ |
|---------------|--------|-----------|---------------|
| P_1 | 0 | | 0.2815 |
| $P_2 P_5$ | 0.2889 | 0 | 0.2591875 |
| $P_3 P_6 P_4$ | 0.2815 | 0.2591875 | 0 |

Here $P_2 P_5$ & $P_3 P_6 P_4$ forms a cluster

| | P_1 | $P_2 P_5 P_3 P_6 P_4$ |
|-----------------------|-------|-----------------------|
| P_1 | 0 | 0.285 |
| $P_2 P_5 P_3 P_6 P_4$ | 0.285 | 0 |

Complete Linkage.

