

Exercise

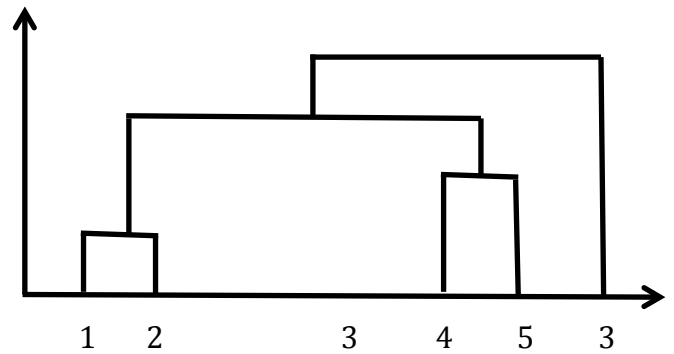
Given the following similarity matrix apply the hierarchical clustering by using the Group Average strategy.

Similarity Matrix

| | P1 | P2 | P3 | P4 | P5 |
|----|----|-----|-----|------|-----|
| P1 | 1 | 0,9 | 0,1 | 0,65 | 0,2 |
| P2 | | 1 | 0,7 | 0,6 | 0,5 |
| P3 | | | 1 | 0,4 | 0,3 |
| P4 | | | | 1 | 0,8 |
| P5 | | | | | 1 |

I° STEP

| | P1P2 | P3 | P4 | P5 |
|------|------|-----|------|------|
| P1P2 | 1 | 0,4 | 0,62 | 0,35 |
| P3 | | 1 | 0,6 | 0,3 |
| P4 | | | 1 | 0,8 |
| P5 | | | | 1 |



II° STEP

| | P1P2 | P3 | P4P5 |
|------|------|-----|------|
| P1P2 | 1 | 0,4 | 0,48 |
| P3 | | 1 | 0,35 |
| P4P5 | | | 1 |