



# Avancier Methods (AM) CONCEPTS

The North-West technique for cluster analysis

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## The north-west method for clustering rows and columns of a matrix

1. Construct a matrix by listing activities in rows and data elements in columns (or vice-versa)
2. Define values for the activity-data relations - CRUD is usual.
3. Identify *clusterable values* – CU is usual.
4. Record the value for each activity-data relationship in the appropriate intersection.
5. Set Row = 1.
6. Study row (Row). Move any columns containing clusterable values to the left, but stopping before those columns already moved to the left. \*
7. Now target those columns that contain clusterable values in row (Row).
8. Move any lower rows that contain clusterable values in the target columns upwards – so they lie close below row (Row).
9. Jump down over the N rows just now moved up \*, add N to Row and repeat the process from step 6.
10. Continue moving columns left and rows up until no more clusterable values are to be found.

\* If a clusterable value is already located in the next column or row, then do not move it, but count it as *already moved* for the purpose of excluding it from subsequent further moves.