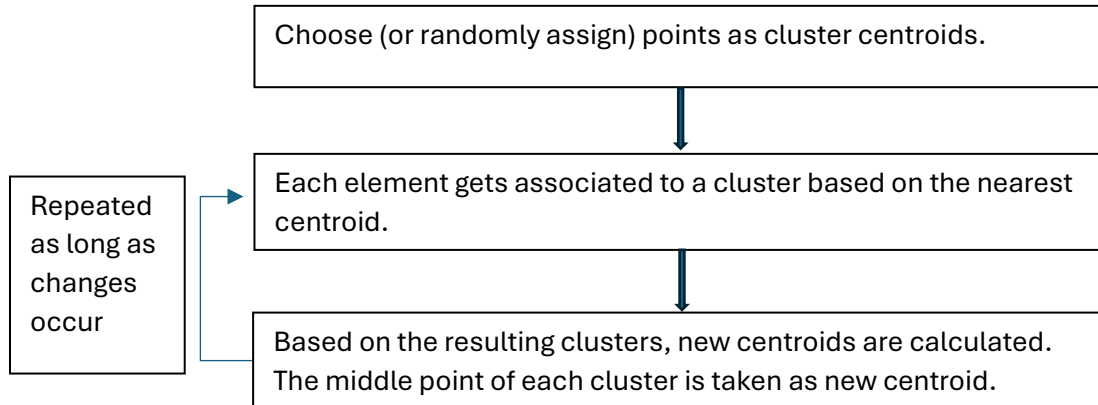


Unit 5: Relating K Means Clustering Visualisations to Algorithmic Logic:

Out of the both given visualisations, I derived the following algorithmic logic for K Means Clustering:



While this approach leads to correct clustering in many cases, it also faces some challenges.

It is important which starting points are chosen for the centroids as this significantly influences the results. Furthermore, it is also important which K is chosen, i.e., how many clusters are created. This cannot be known in all cases and while it lays in the power of the Data Scientist that uses the K Means Clustering algorithm, other clustering algorithms also calculate the optimal number of clusters. Overall, while the K Means Clustering algorithm has a level of simplicity that enables an easing understanding, this simplicity also results in the challenges mentioned above. Thus, many use cases will require a different algorithm.