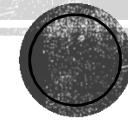
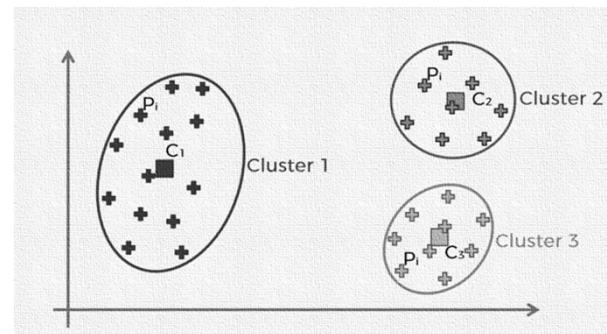
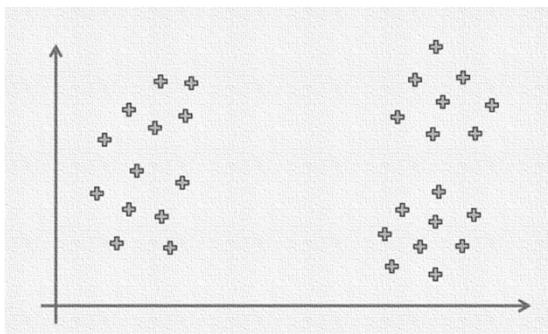


UNSUPERVISED MACHINE LEARNING

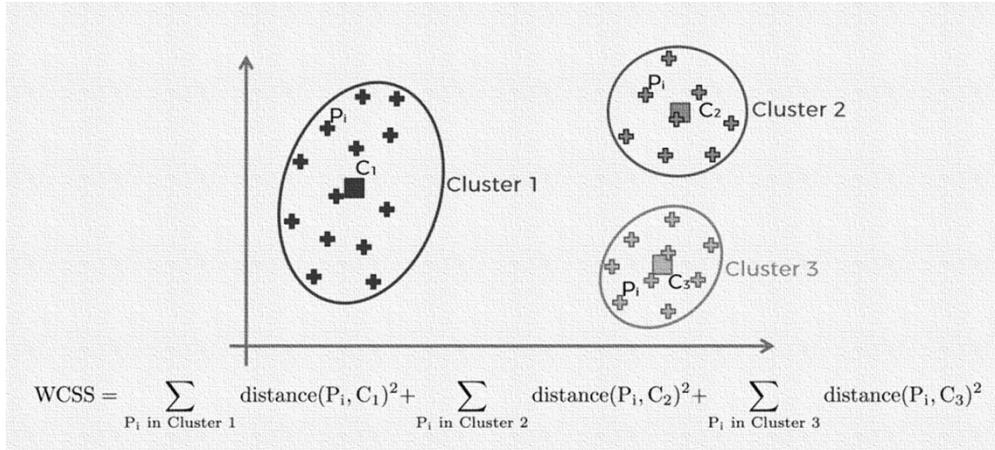
Mohan M J



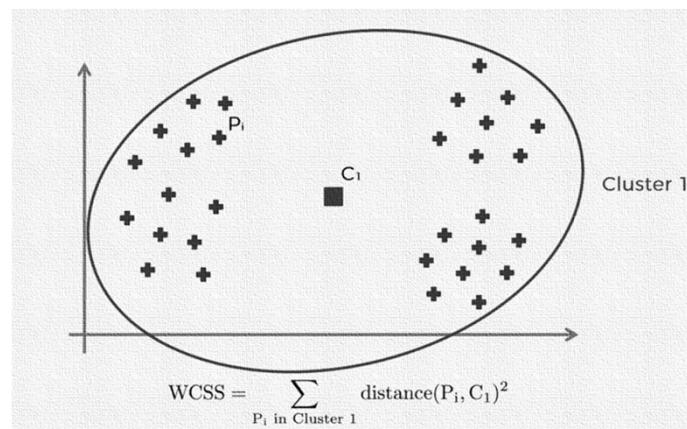
CHOOSING NUMBER OF CLUSTERS



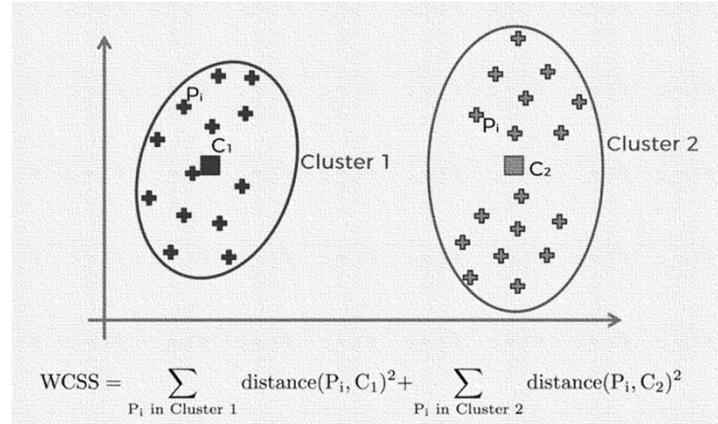
WITHIN CLUSTER SUM OF SQUARES



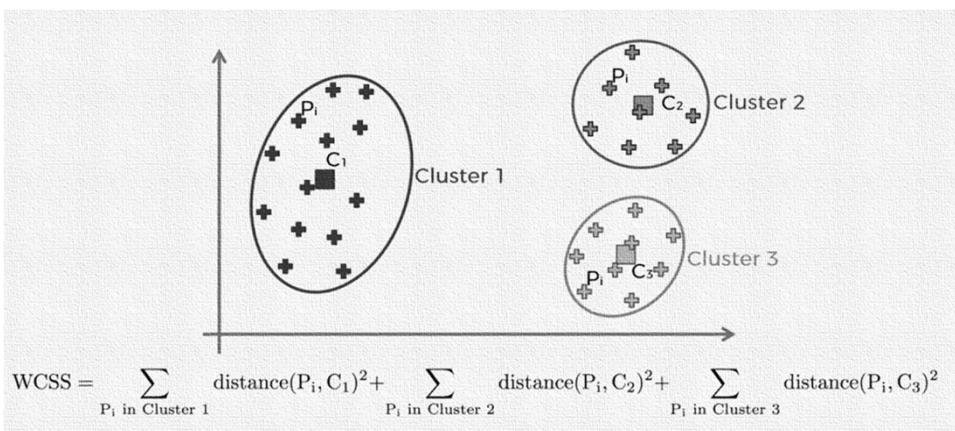
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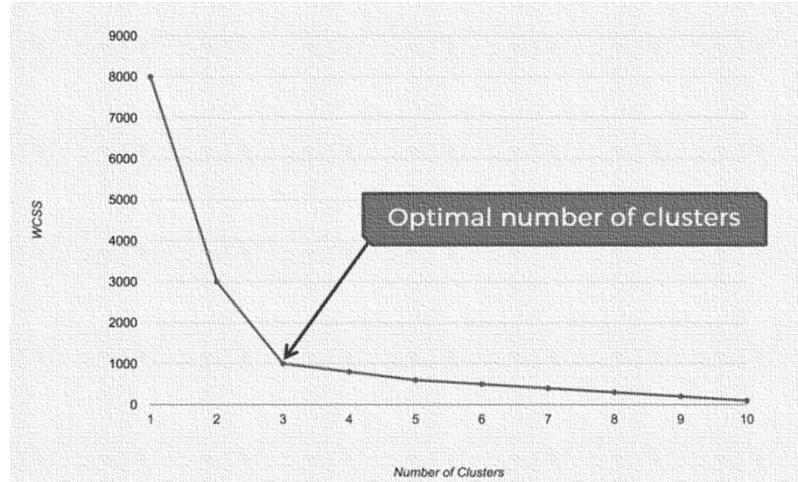
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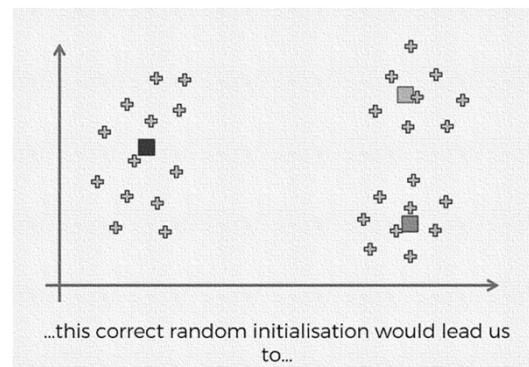
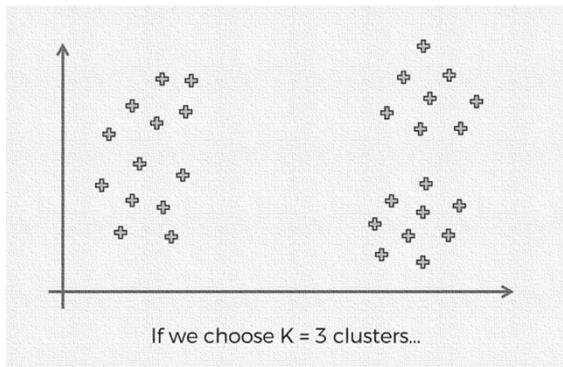
CHOOSING NUMBER OF CLUSTERS



ELBOW METHOD

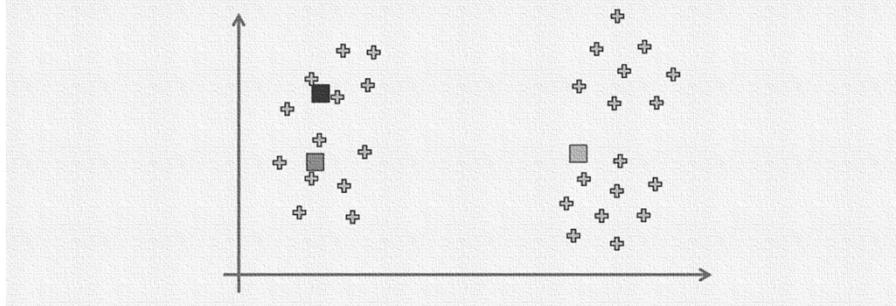


RANDOM INITIALIZATION TRAP



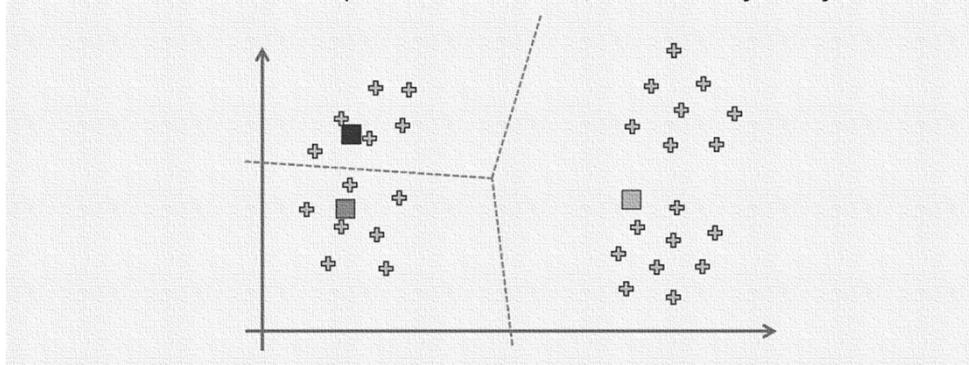
RANDOM INITIALIZATION TRAP

STEP 2: Select at random K points, the centroids (not necessarily from your dataset)



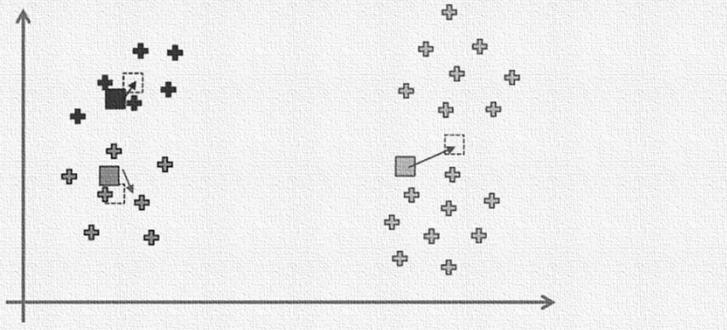
RANDOM INITIALIZATION TRAP

STEP 2: Select at random K points, the centroids (not necessarily from your dataset)



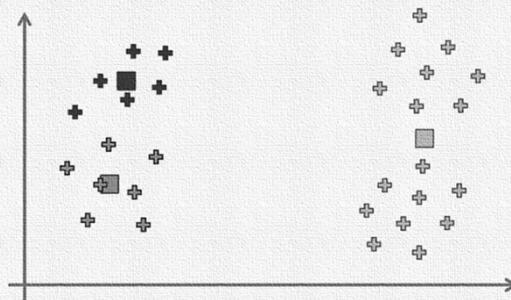
RANDOM INITIALIZATION TRAP

STEP 3: Assign each data point to the closest centroid \rightarrow That forms K clusters

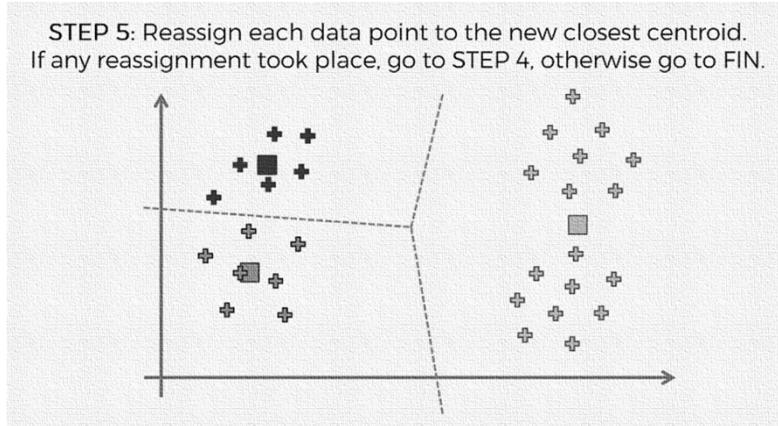


RANDOM INITIALIZATION TRAP

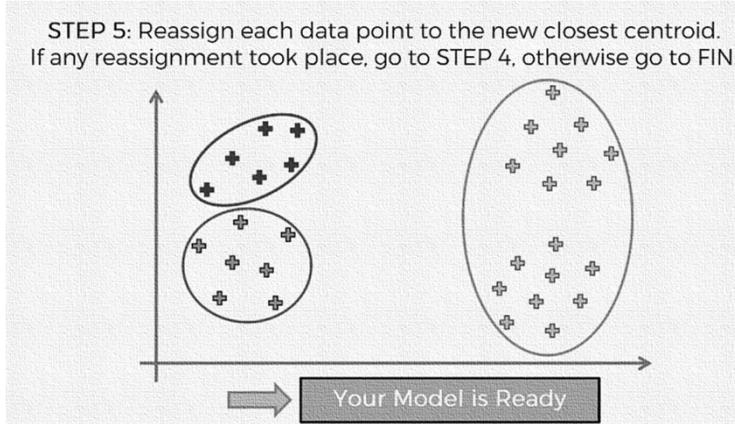
STEP 4: Compute and place the new centroid of each cluster



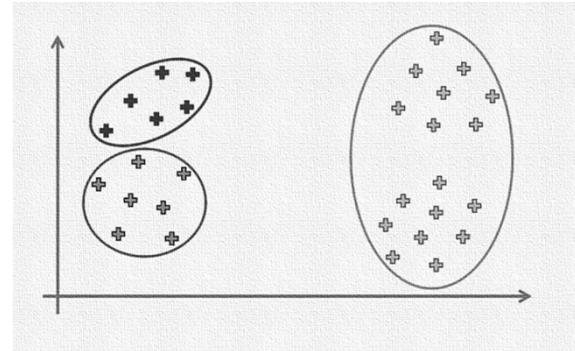
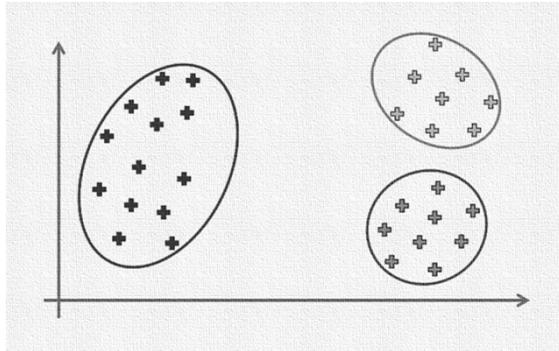
RANDOM INITIALIZATION TRAP



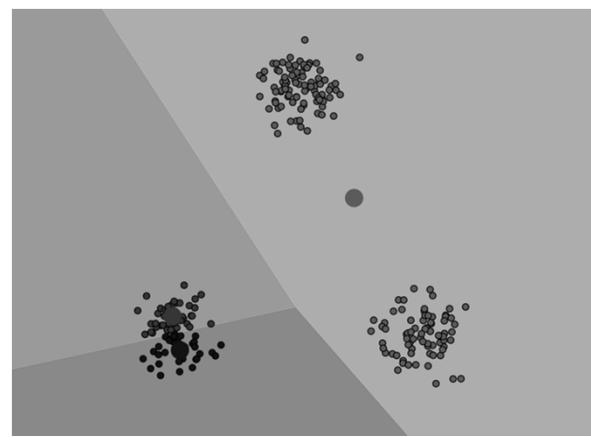
RANDOM INITIALIZATION TRAP



RANDOM INITIALIZATION TRAP

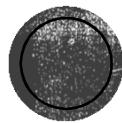
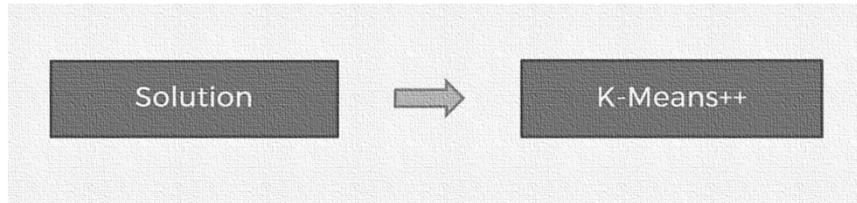


RANDOM INITIALIZATION TRAP



RANDOM INITIALIZATION TRAP

'k-means++' : selects initial cluster centers for k-mean clustering in a smart way to speed up convergence.



THANK YOU