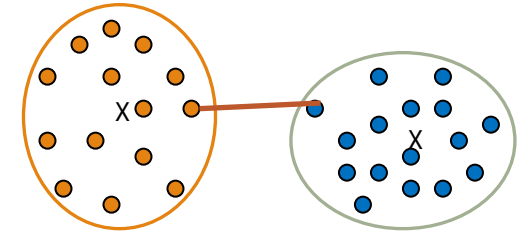# Single Link vs. Complete Link in Hierarchical Clustering

- ❑ Single link (nearest neighbor)
  - ❑ The similarity between two clusters is the similarity between their most similar (nearest neighbor) members
  - ❑ Local similarity-based: Emphasizing more on close regions, ignoring the overall structure of the cluster
  - ❑ Capable of clustering non-elliptical shaped group of objects
  - ❑ Sensitive to noise and outliers
- ❑ Complete link (diameter)
  - ❑ The similarity between two clusters is the similarity between their most dissimilar members
  - ❑ Merge two clusters to form one with the smallest diameter
  - ❑ Nonlocal in behavior, obtaining compact shaped clusters
  - ❑ Sensitive to outliers