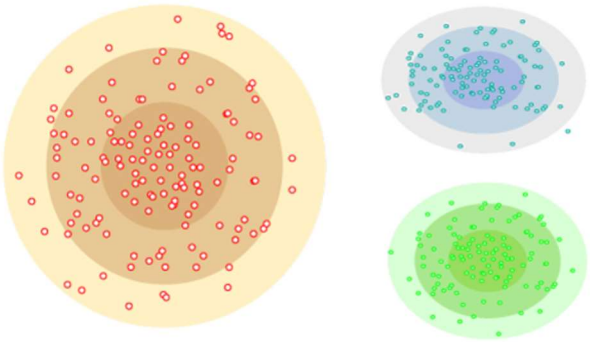
Distribution Model Based Clustering

In the distribution model-based clustering method, the data is divided based on the probability of how a dataset belongs to a particular distribution. The grouping is done by assuming some distributions commonly Gaussian distribution.

Expectation-Maximization Clustering algorithm that uses Gaussian Mixture Models



Distribution model-based clustering assumes that the data is generated from a mixture of several distributions. The goal is to identify the underlying distribution and assign data points to clusters based on probabilistic models.

How it works: GMM assumes that the data is generated from a mixture of several Gaussian distributions with unknown parameters. It uses the Expectation-Maximization (EM) algorithm to estimate the parameters and assign data points to clusters.