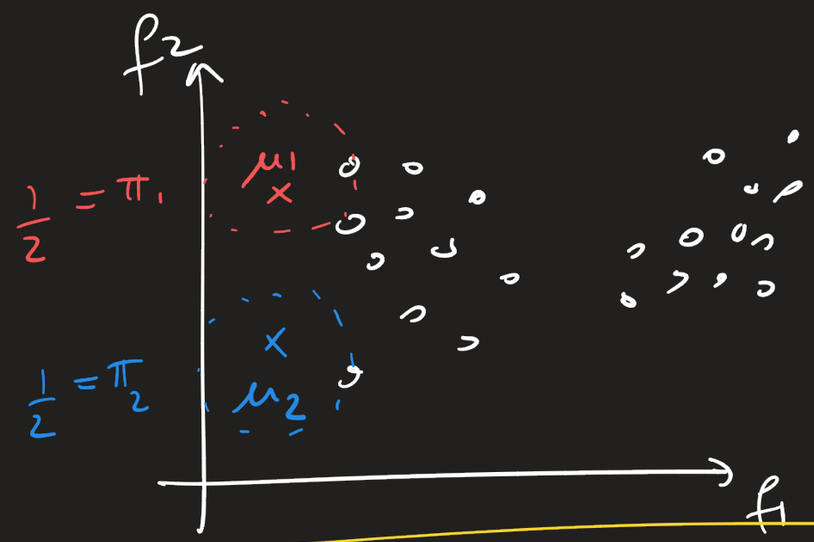
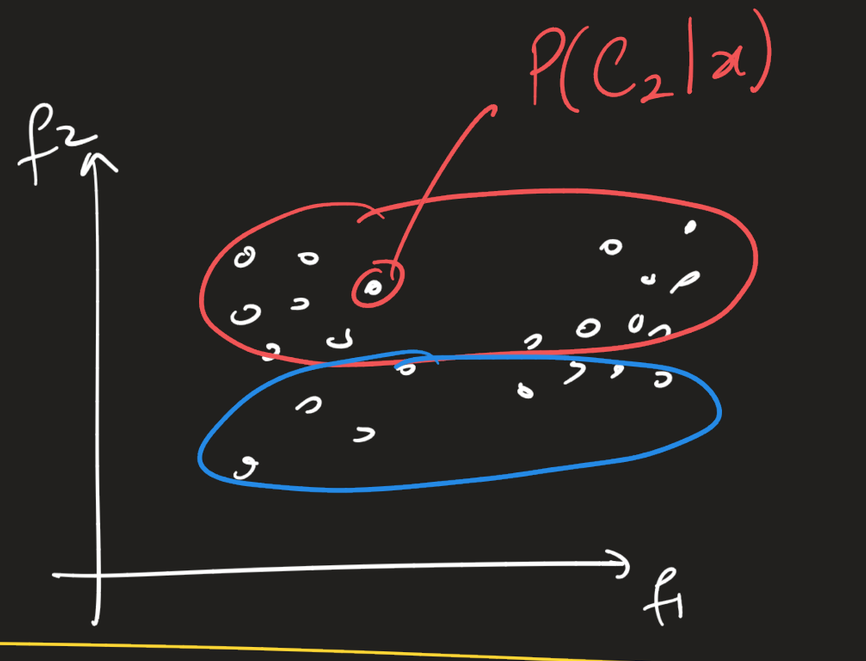
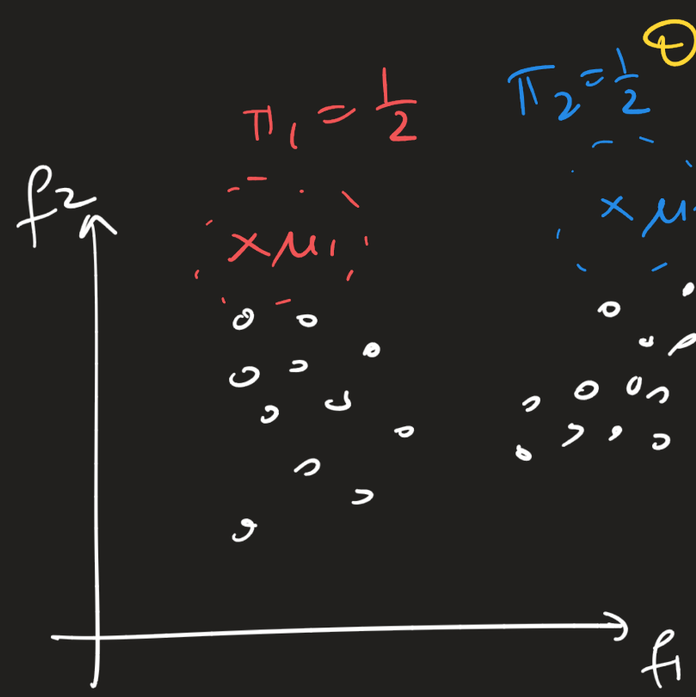
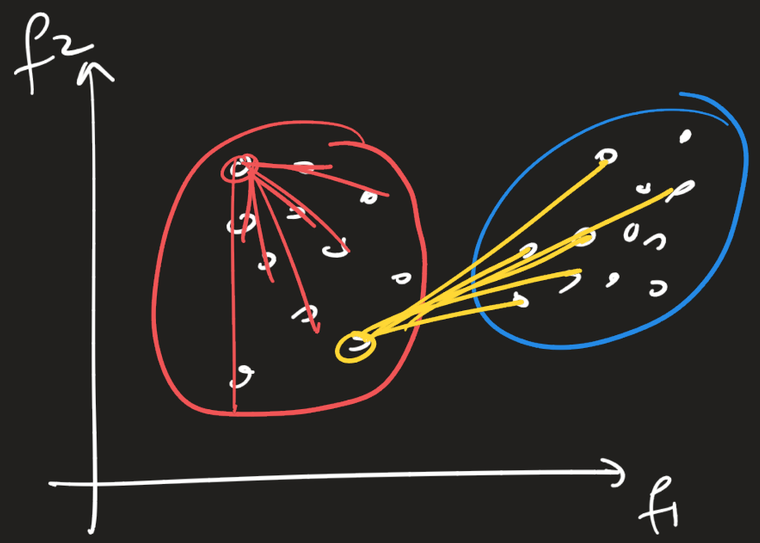
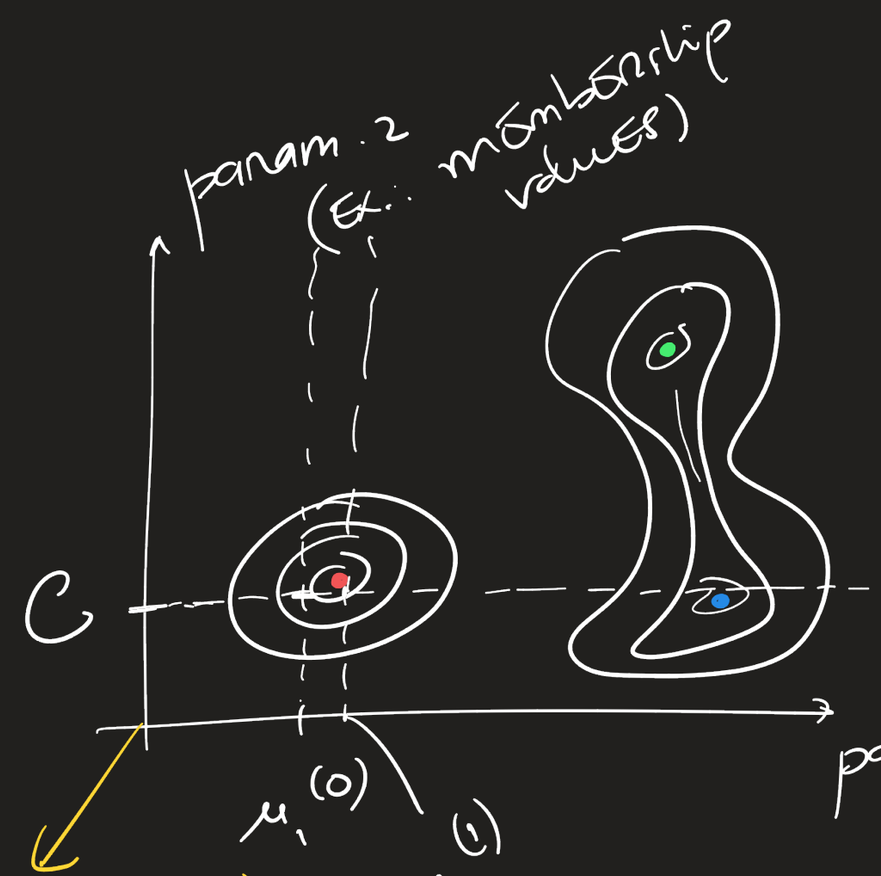








Internal Criteria



• – global maximum

•, • – local maxima

$P(X|\theta)$

$$\theta = \{ \mu_K, \Sigma_K, \pi_K \}_{K=1}^{K}$$

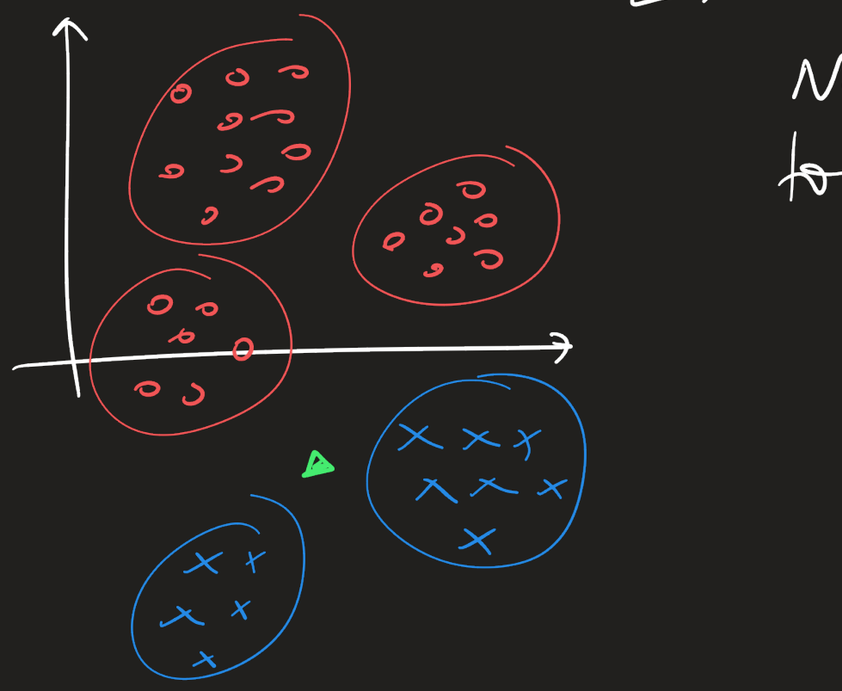
$$\underline{P(X|\theta)} = \prod_{i=1}^{N} \sum_{K=1}^{K} \pi_K \cdot G(x_i | \mu_K, \Sigma_K)$$

GMM:

① density Estimation:

→ finds the data likelihood.

↳ can be used in Naïve Bayes classifier to make predictions



② Clustering — Unsupervised learning