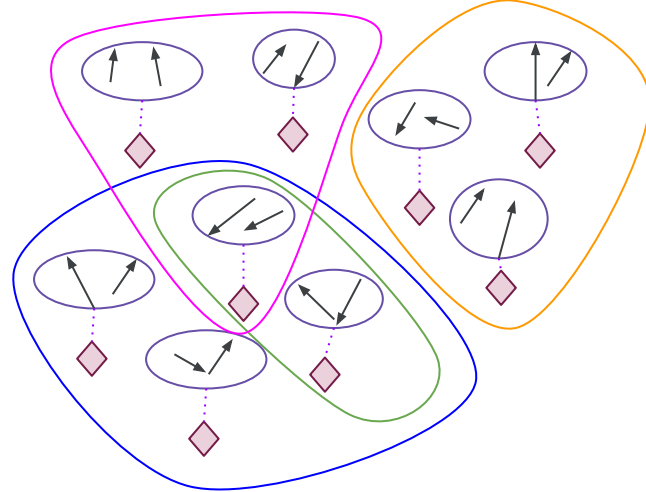
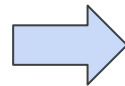
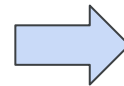


Given a collection of q -sized bags (small)
 [feature-vectors in bag, bag-label]

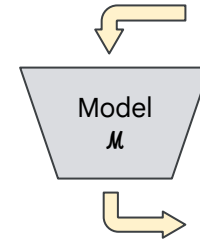
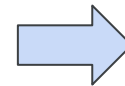


Sample s composite (large) bags by sampling from distribution \bar{D}
 [feature vectors in the large bag,
 large-bag label = sum of constituent
 small-bag labels]



Model Training
on Large Bags

**Weak Classifier on Composite
Bags(Large)**



Inference small-bags mapped
to inferred labels: \mathcal{M} is a strong
classifier for small-bags.