# ENSEMBLE METHODS

* Joining 2 or more models to form a better model
* They are of two types-bagging and boosting
* Two main factors to consider are bias and variance
* Higher bias leads the algorithm to not classify/solve the problem effectively while higher variance leads the algorithm to fit all the points accurately.
* Another method to improve ensemble methods is by introducing randomness into high variance algorithms before they are ensembled together.
* Randomness can be introduced by sampling the data with replacement and fitting algorithm to the sampled data or by subsetting the features in each split of a decision treeand then ensemble it.
* In adaboost weight = ln(accuracy/1-accuracy)
* Weight of ln(x/0) = positive infinity while for ln(0/x) = negative infinity
* base\_estimator- model used for weak learners
* n\_estimators – number of weak learners used.