Ensemble Learning
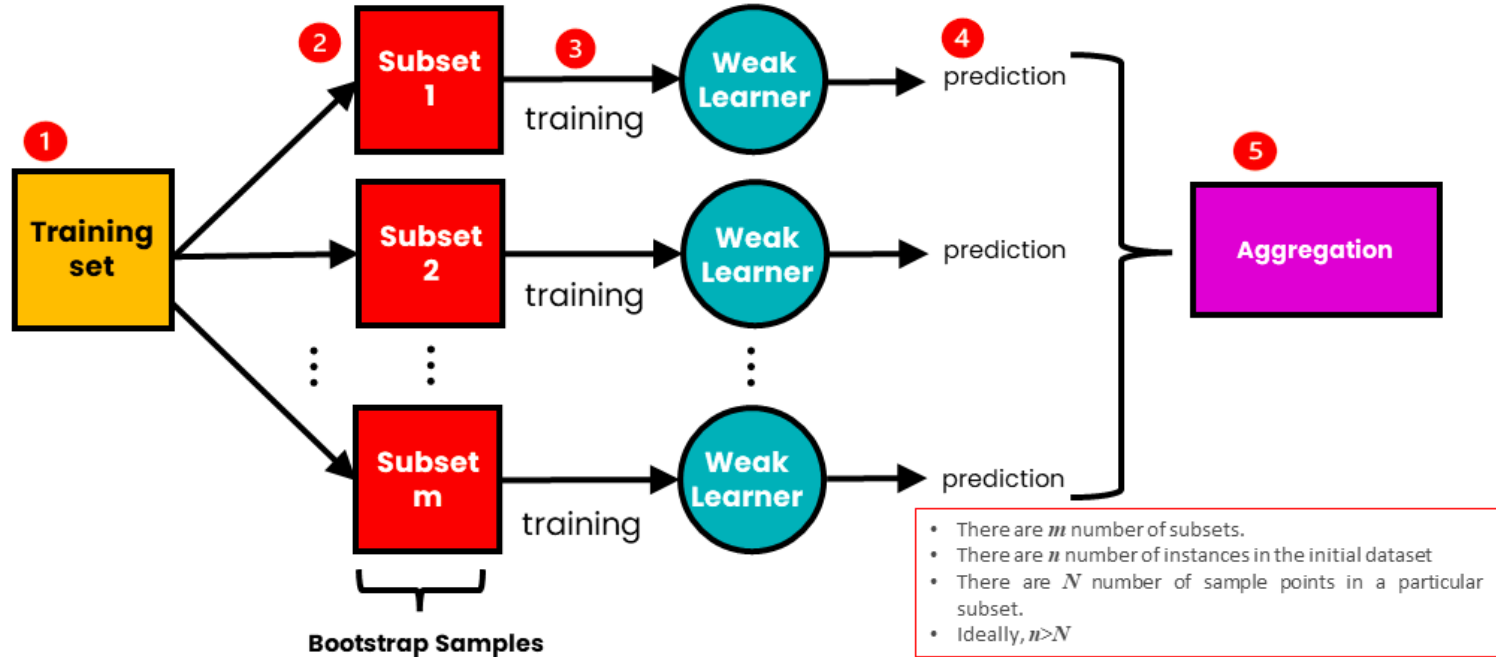
From weak learner to strong learner
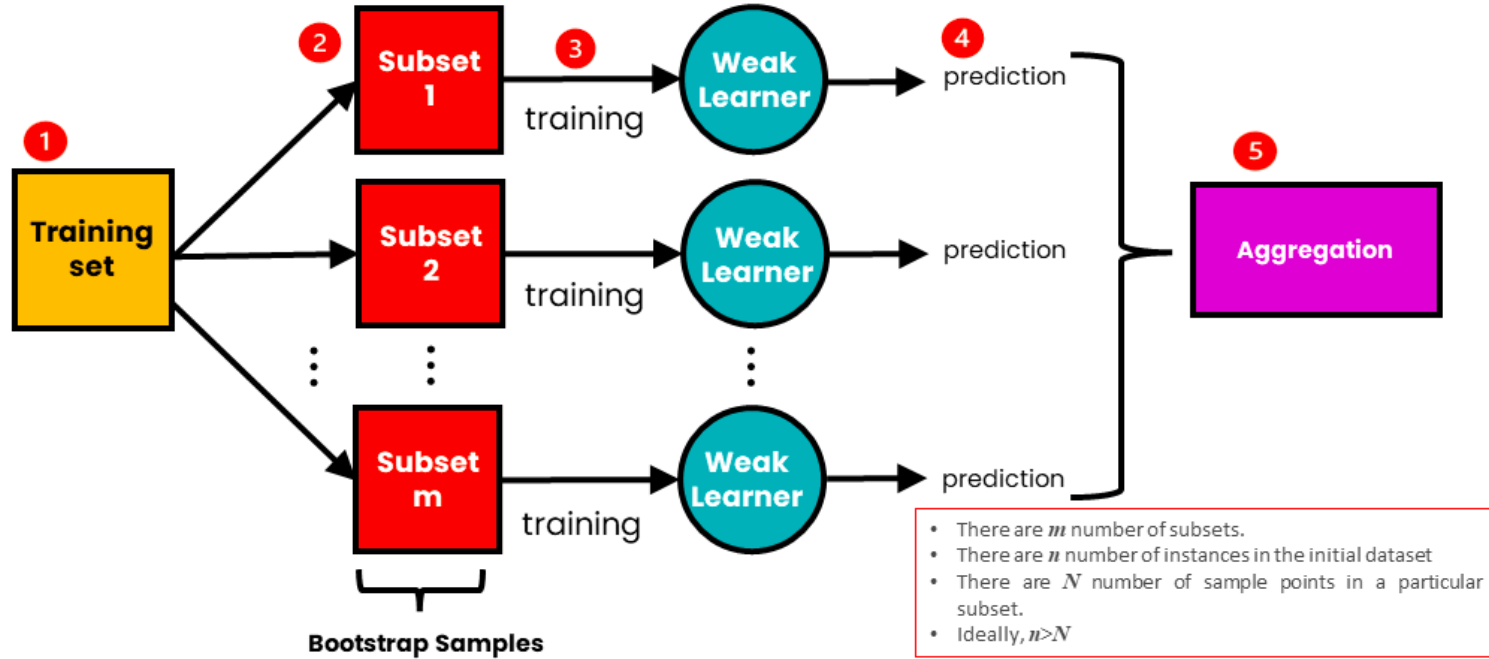
Bagging

The Process of Bagging (Bootstrap Aggregation)
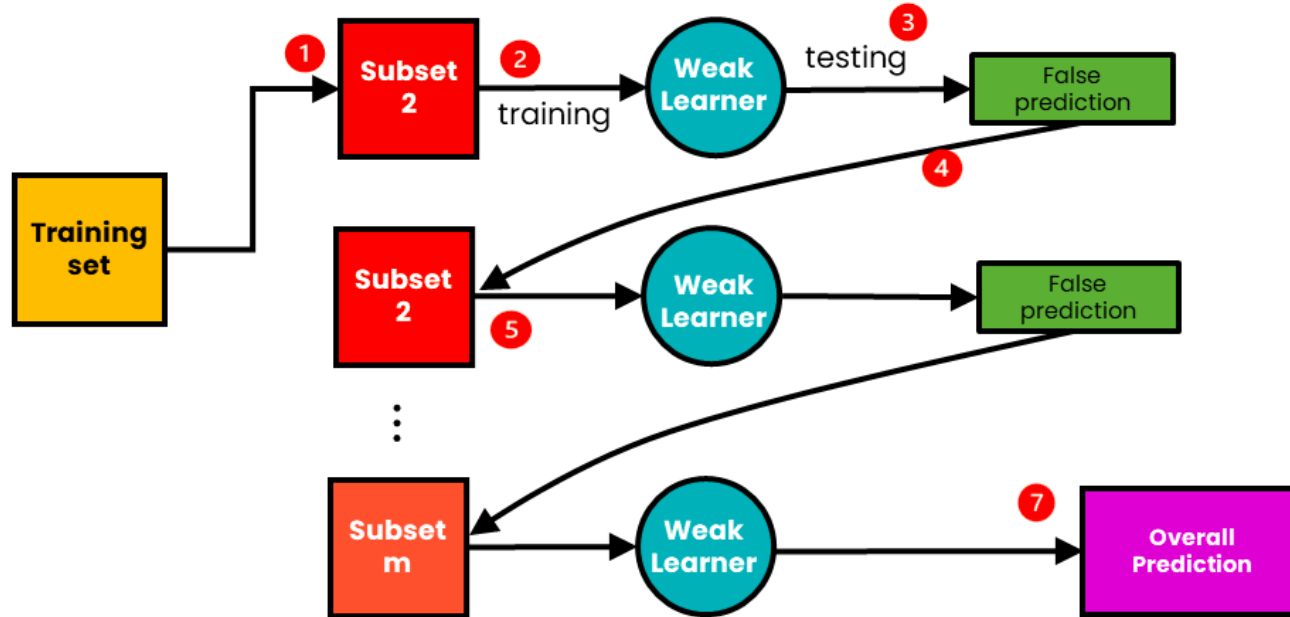
- There are m number of subsets.
- There are n number of instances in the initial dataset
- There are N number of sample points in a particular subset.
- Ideally, $n > N$

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The Process of Bagging (Bootstrap Aggregation)

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Boosting

The Process of Boosting

	Bagging	Boosting	Stacking
Purpose	Reduce Variance	Reduce Bias	Improve Accuracy
Base Learner Types	Homogeneous	Homogeneous	Heterogeneous
Base Learner Training	Parallel	Sequential	Meta Model
Aggregation	Max Voting, Averaging	Weighted Averaging	Weighted Averaging