XGBoost performs as the best model with an accuracy of **69.48 .**

The following are the hyper parameters which were tuned along with their best performing vaue :

1) **Learning rate**: The learning parameter controls the magnitude of this change in the initial estimate which is updated using the output of each tree.
2) **n_estimators :** The number of sequential trees to be modeled.
3) **Max_depth** : Maximum depth of a tree
4) **Min_child_weight**: Defines the minimum sum of weights of all observations required in a child.
5) **Subsample** : Denotes the fraction of observations to be randomly samples for each tree.
6) **Gamma**: A node is split only when the resulting split gives a positive reduction in the loss function. Gamma specifies the minimum loss reduction required to make a split.
7) **Colsample_bytree**: Denotes the fraction of columns to be randomly samples for each tree.

Hyperparameter	**Best performing value**
Learning rate	0.2
N_estimators	1000
Max_depth	4
Min_child_weight	6
Subsample	0.9
Gamma	0.3
Colsample_bytree	0.7