

## Adaboost

### Adaboos regression Algoithm

sl no	estimator	n estimator	Loss	random state	R score
1	None	50	Linear	1	0.863
2	None	50	Square	1	0.565
3	None	50	exponential	1	0.71

### Gradient boosting regression Algorithm

loss	criterion	max_features	random_state	Rscore
1 squared_error	friedman_mse	None	1	0.887
2 squared_error	friedman_mse	sqrt	1	0.888
3 squared_error	squared_error	sqrt	1	0.888
4 squared_error	friedman_mse	log2	1	0.888
5 squared_error	squared_error	log2	1	0.888
6 absolute_error	friedman_mse	sqrt	1	0.87
7 absolute_error	friedman_mse	None	1	0.865
8 absolute_error	squared_error	sqrt	1	0.87
9 absolute_error	friedman_mse	log2	1	0.87
10 absolute_error	squared_error	log2	1	0.87
11 huber	friedman_mse	None	1	0.891
12 huber	friedman_mse	sqrt	1	0.887
13 huber	squared_error	sqrt	1	0.887
14 huber	friedman_mse	log2	1	0.887
15 huber	squared_error	log2	1	0.887
16 quantile	friedman_mse	None	1	0.57
17 quantile	friedman_mse	sqrt	1	0.606
18 quantile	squared_error	sqrt	1	0.606
19 quantile	friedman_mse	log2	1	0.606
20 quantile	squared_error	log2	1	0.606

### XG Boost Regression

n_estimators	max_depth	eta	subsample	colsample_bytree
1	100	1	0.3	0
2	1000	10	0.01	1
3	1000	7	0.09	0.7
4	35	7	0.09	1
5	35	7	0.01	1

### LG bosst regression Algorithm

Sl no	boosting_type	others	Rscore
1	gbdt	num_leaves=31, m	0.865
2	dart	num_leaves=31, m	0.874
3	rf	num_leaves=31, m	0.881

Finalized model

LG boost regression

**Reason :** Highest Rscore 0.881

Rscore

-9.76

0.8

0.8

0.864

0.849