

Decision Tree- Result, based on the variable changing

Decision tree

S.No	criterion	splitter	R_score
1	squared_error	best	0.908828149
2	squared_error	random	0.874643503
3	friedman_mse	best	0.920733747
4	friedman_mse	random	0.945899186
5	absolute_error	best	0.937518584
6	absolute_error	random	0.779973485
7	poisson	best	0.928433186
8	poisson	random	0.723111975

Criterion =friedman_mse, Splitter = random gives close to 1, we can save this model for deployment

Random Forest- ensemble

S.No	criterion	max_features	R2_result
1	squared_error	sqrt	0.799885
2	absolute_error	1.0	0.941755
3	absolute_error	sqrt	0.782179
4	squared_error	1.0	0.935836
5	friedman_mse	1.0	0.941591
6	friedman_mse	sqrt	0.818865
7	poisson	sqrt	0.806587
8	poisson	1.0	0.933685

Criterion=absolute_error, max_features=1.0 gives close to 1, we can save this model for deployment