MACHINE LEARNING ALGOS

- **MULTILINEARREGRESSION (r_score)=0.789479034986**
- **SUPPORT VECTOR MACHINE**

S.NO	HYPER PMETER	LINEAR	RBF	POLY	SIGMOID
1	C10	0.7649	0.086	0.8627	0.0897
2	C100	0.5950	0.0702	0.8681	0.0897
3	C500	0.6340	0.0410	0.8706	0.0897
4	C1000	0.6893	0.0130	0.8810	0.0897
5	C2000	0.7650	0.0602	0.8956	0.0897
6	C3000	0.7649	0.1322	0.9012	0.0897

The SVM regression use r2_score =0.9012

DECISION TREE

S.NO	CRITERION	MAX FEATURES	SPLITTER	R_SCORE
1	FRIEDMAN_MSE	AUTO	BEST	0.6932
2	FRIEDMAN_MSE	AUTO	RANDOM	0.7185
3	FRIEDMAN_MSE	SQRT	BEST	0.7148
4	FRIEDMAN_MSE	SQRT	RANDOM	0.6841
5	FRIEDMAN_MSE	LOG2	BEST	0.6673
6	FRIEDMAN_MSE	LOG2	RANDOM	0.6756
7	MSE	AUTO	BEST	0.6907
8	MSE	AUTO	RANDOM	0.7142
9	MSE	SQRT	BEST	0.7443
10	MSE	SQRT	RANDOM	0.6005
11	MSE	LOG2	BEST	0.7148
12	MSE	LOG2	RANDOM	0.6225

13	MAE	AUTO	BEST	0.6783
14	MAE	AUTO	RANDOM	0.7134
15	MAE	SQRT	BEST	0.6657
16	MAE	SQRT	RANDOM	0.6850
17	MAE	LOG2	BEST	0.7043
18	MAE	LOG2	RANDOM	0.7749

Decision Tree r2_value=0.7749

- **RANDOM FOREST**

S.NO	CRITERION	MAX FEATURES	N_ESTIMATORS	R_SCORE
1	MSE	AUTO	10	0.8392
2	MSE	AUTO	100	0.8554
3	MSE	SQRT	10	0.8569
4	MSE	SQRT	100	0.8698
5	MSE	LOG2	10	0.8569
6	MSE	LOG2	100	0.8698
7	MAE	AUTO	10	0.8345
8	MAE	AUTO	100	0.8534
9	MAE	SQRT	10	0.8349
10	MAE	SQRT	100	0.8670
11	MAE	LOG2	10	0.8349
12	MAE	LOG2	100	0.8670

Random Forest regression r2_value=0.8698