To find following the Machine Learning Regression Method   using   r2 value

1. Multiple Linear Regression (r _score)=0.9358

2. Support Vector Machine:

S.NO	HYPER PARAMETER	Linear (r value)	RBF(Non Linear) (r value)	POLY (r value)	SIGMOID (r value)
1	C=10	-0.039644	-0.056807	-0.053667	-0.054723
2	C=100	0.1064681	-0.050726	-0.019802	-0.030453
3	C=500	0.5928772	-0.024032	0.114642	0.070572
4	C=1000	0.7802839	0.0676834	0.266163	0.185068
5	C=2000	0.8767721	0.0675155	0.481002	0.397065
6	C=3000	0.8956744	0.1232275	0.637006	0.591363

The SVM KERNEL=LINEAR(C=3000,r_score=0.8956744)

3. DECISION TREE

S.NO	CRITERION	SPLITTER	r_value
1	Squared error	best	0.893980
2	Squared error	random	0.824416
3	Friedman_mse	random	0.91844
4	Friedman_mse	best	0.9165921
5	Absolute_error	Best	0.9489931
6	Absolute_error	random	0.9043359
7	Poisson	Best	0.9280778
8	Poisson	Random	0.7432614

The Decision Tree **CRITERION= absolute_error, splitter=best(r_score)** = 0.94899

4.**RANDOM FOREST**

S.NO	n_estimators	Criterion	Random_state	r_value
1	50	Squarred_Error	0	0.941105
2	50	Absolute_Error	0	0.9401902
3	50	Friedman_mse	0	0.941115
4	50	Poisson	0	0.94637
5	100	Squarred_Error	0	0.9450
6	100	Absolute_error	0	0.9459089
7	100	Friedman_mse	0	0.9450
8	100	Poisson	0	0.9402

The RandomForest

CRITERION=absoulute_error,n_estimators=100,random_state=0,(r_score)=0.9459