To find following the Machine Learning Regression Method using r2 value

1. Multiple Linear Regression (r _score)=0.7891345

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	0.0462426	-0.032380	0.0386251	0.0394401
2	C=100	0.6289632	0.3196645	0.6146983	0.5268415
3	C=500	0.7630311	0.6616226	0.8285611	0.4429560
4	C=1000	0.7648394	0.8107195	0.85465155	0.2120454
5	C=2000	0.7439352	0.8540730	0.8583433	-0.621621
6	C=3000	0.7413370	0.864625	0.858083	-2.143154

The SVM KERNEL=RBF(C=3000,r_score=0.864625)

3. DECISION TREE

S.NO	CRITERION	SPLITTER	r_value
1	Squared error	best	0.6861866
2	Squared error	random	0.7124764
3	Friedman_mse	random	0.68774708
4	Friedman_mse	best	0.66404029
5	Absolute_error	Best	0.7159136
6	Absolute_error	random	0.64235612
7	Poisson	Best	0.67126820
8	Poisson	Random	0.6915625

The Decision Tree CRITERION= absolute_error, splitter=best(r_score) = 0.7159136

4.**RANDOM FOREST**

S.NO	n_estimators	Criterion	Random_state	r_value
1	50	Squarred_Error	0	0.8519160
2	50	Absolute_Error	0	0.8576522
3	50	Friedman_mse	0	0.8519160
4	50	Poisson	0	0.8495669
5	100	Squarred_Error	0	0.852464
6	100	Absolute_error	0	0.856570
7	100	Friedman_mse	0	0.8524645
8	100	Poisson	0	0.850502

The RandomForest

CRITERION=absoulute_error,n_estimators=50, random_state=0,(r_score)=0.8576522