To find following machine learning regression method using r2 value

1.MULTIPLE LINEAR REGRESSION – R2 Value=0.9358

2.SUPPORT VECTOR MACHINE:

S.No	HYPER PARAMETER	LINEAR (R Value)	RBF (NON LINEAR) (R Value)	PLOY (R VALUE)	SIGMOID (R VALUE)
1	C=1	-0.055	-0.057	-0.057	-0.057
2	C=10	-0.039	-0.056	-0.053	-0.054
3	C=100	0.106	-0.0507	-0.019	-0.0304
4	C=500	0.592	-0.024	0.114	0.07
5	C=1000	0.78	0.006	0.266	0.185
6	C=2000	0.876	0.067	0.481	0.397
7	C=3000	0.895	0.123	0.637	0.591

The SVM Regression use R^2 value –Linear and hyper parameter (C=3000)=0.895

3.DECISION TREE:

S NO	CRITERION	SPLITTER	R VALUE
1	Squared Error	Best	0.9
2	Squared Error	Random	0.91
3	Friedman MSE	Best	0.89
4	Friedman MSE	Random	0.88
5	Absolute Error	Best	0.94
6	Absolute Error	Random	0.79
7	Poisson	Best	0.92
8	Poisson	Random	0.6

The Decision Tree Regression R^2 Value(Absolute Error, Best)=0.94

4.DECISION TREE:

S.No	N_estimators	Random_State	Criterion	R value
1	1	0	Squarred error	0.964
2	1	0	Absolute Error	0.967
3	1	0	Friedman mse	0.955
4	1	0	Poisson	0.964
5	10	0	Squarred error	0.925
6	10	0	Absolute Error	0.928
7	10	0	Friedman mse	0.92
8	10	0	Poisson	0.93
9	50	0	Squarred error	0.944
10	50	0	Absolute Error	0.94
11	50	0	Friedman mse	0.938
12	50	0	Poisson	0.946

The Random Forest Regression R^2 Value (Absolute Error, Random state, N estimators)=0.967