

To find the following Machine Learning Regression method using R2 Value

1. Multiple Linear Regression: (R2_Score)= 0.9358680970046243

2. Support Vector Machine:

S.NO	HYPER PARAMETER	LINEAR (R2_Score)	RBF(NON-LIN EAR) (R2_Score)	POLY (R2_Score)	SIGMOID (R2_Score)
1	C=10	-0.03964494	-0.05680756	-0.05366720	-0.05471958
2	C=100	0.106468196	-0.05072602	-0.01980213	-0.03045351
3	C=500	0.592897727	-0.02432334	0.114684807	0.070572144
4	C=1000	0.780283988	0.006768344	0.266163709	0.185068619
5	C=2000	0.876772168	0.067515542	0.481002815	0.397065286
6	C=3000	0.895674469	0.123227566	0.637006422	0.591363020

The SVM Regression use R2_Score (non-linear (Linear) and hyper parameter (c=3000)) = 0.89567449

3. Decision Tree:

S.NO	CRITERION	MAXFEATURES	SPLITTER	R2_SCORE
1	<i>squared error</i>	sqrt	best	0.84234620770
2	<i>squared error</i>	Log2	random	0.71696503772
3	<i>squared error</i>	Log2	best	0.74812437256
4	<i>squared error</i>	Sqrt	random	0.72510205570
5	<i>Poisson</i>	sqrt	best	0.75086106837
6	<i>Poisson</i>	Log2	random	0.47955828724
7	<i>Poisson</i>	Log2	best	-0.9691194759
8	<i>Poisson</i>	Sqrt	random	0.25343820912
9	Friedman mse	sqrt	best	0.55951400559
10	Friedman mse	Log2	random	-0.3252100643
11	Friedman mse	Log2	best	0.69947319199
12	Friedman mse	Sqrt	random	-0.1193951643
13	Absolute error	sqrt	best	0.74185813036
14	Absolute error	Log2	random	0.58678251766
15	Absolute error	Log2	best	0.78860589241
16	Absolute error	Sqrt	random	0.58551036587

The Decision Tree Regression use R2_Score is **Criterion= 'Square_error'**,
Maxfeature= 'sqrt' and **Splitter= 'best'** = 0.84234620770