

To Find the Machine Regression method using in r2 value

### 1. Multi Linear Regression : R2 Value= 0.9358680970042643

### 2. SUPPORT VECTOR MACHINE:

S.NO	HYPER PARAMETER	LINEAR (r value)	RBF (NON LINEAR) (r value)	POLY (r value)	SIGMOID (r value)
1	C10	-0.0396449	-0.056807592	-0.05366720	-0.05471958
2	C100	0.106468196	-0.050726022	-0.01980213	-0.030453514
3	C500	0.5928772	-0.023233481	0.11468480	0.185068619
4	C1000	0.780283921	0.006783448	0.266163709	0.0705721448
5	C2000	0.87677216	0.06751554270	0.48100281	0.3970652868
6	C3000	0.89567446	0.123227562	0.63700642	0.5913630207

The SVM Regression use R2 Value (Linear & Hyper Parameter C3000) = 0.89567446

### 3. DECISION TREE

S.NO	CRITERION	MAX FEATURES	SPLITTER	R VALUE
1	squared_error	None	best	0.942816921
2	squared_error	None	random	0.87079319747
3	squared_error	sqrt	best	-0.4125804618
4	squared_error	sqrt	random	0.48351713559
5	squared_error	log2	best	0.53716491446
6	squared_error	log2	random	0.657090507332
7	friedman_mse	None	random	0.7516241049
8	friedman_mse	None	best	0.93488114395
9	friedman_mse	sqrt	best	0.46810862738
10	friedman_mse	sqrt	random	-0.58469053110
11	friedman_mse	log2	random	0.28381544482
12	friedman_mse	log2	best	0.46276949855
13	absolute_error	None	best	0.951388587519
14	absolute_error	None	random	0.78363583089
15	absolute_error	sqrt	random	0.57464654716
16	absolute_error	sqrt	best	0.728812606224
17	absolute_error	log2	best	0.244334625815
18	absolute_error	log2	random	0.38955182274
19	poisson	None	random	0.88335426917
20	poisson	None	best	0.9040155543501
21	poisson	sqrt	best	0.381201052492
22	poisson	sqrt	random	0.006214577107
23	poisson	log2	random	0.684432061894
24	poisson	log2	best	0.488460166917

The Decision Tree Regression – R2 value (absolute\_error, None, best) = 0.951388587519