MACHINE LEARNING-REGRESSION

1.Multiple Linear Regression

r_score=0.93586809700

2.Support Vector Machine

S.NO	HYPER PARAMETER	LINEAR (r value)	RBF(NON LINEAR) (r value)	POLY (r value)	SIGMOID (r value)
1	C10	-0.039644	-0.0568075	-0.0536672	-0.0547195
2	C100	0.106468	-0.0507260	-0.018021	-0.0304535
3	C500	0.592877	-0.0243233	0.1468480	0.0705721
4	C1000	0.780283	0.00676834	0.26616370	0.1850686
5	C2000	0.876772	0.0675155	0.48100281	0.3970652
6	C3000	0.895674	0.1232276	0.6370064	0.5913630
7	C4000	0.897230	0.1723831	0.7326375	0.6282370
8	C5000	0.9003762	0.2124283	0.7936555	0.7306562
9	C7000	0.9181914	0.2788017	0.8298787	0.8259633
10	C10000	0.9239983	0.3718950	0.8129628	0.8535311

r_score=0.9239983

3.Decision Tree

S.NO	CRITERION	MAN FEATURES	SPLITTER	r_VALUE
1	mse	auto	best	0.89081716
2	mse	auto	random	0.84376649
3	mse	sqrt	best	0.359677695
4	mse	sqrt	random	0.722957312
5	mse	log2	best	0.689137959
6	mse	log2	random	0.83080017
7	mse	auto	best	0.955967643
8	mae	auto	random	0.8544819290
9	mae	sqrt	best	0.565392451
10	mae	sqrt	random	0.4087393110
11	mae	log2	best	-0.269041103
12	mae	log2	random	0.0381441759
13	friedman_mse	auto	best	0.9241528750
14	friedman_mse	auto	random	0.8205188655
15	friedman_mse	sqrt	best	0.1431036013
16	friedman_mse	sqrt	random	0.2727762463
17	friedman_mse	log2	best	0.5403569884
18	friedman_mse	log2	random	-1.23532842030

r_score=0.955967643

4.Random Forest

r_score=0.944633639431

Hence the best model is ==DECISION TREE==