Find the machine learning regression using r2 value

1. Multiple linear regression (r2 value=0.935)
2. Support vector machine :

S.NO	*C Parameter*	*Linear (r value)*	*Poly (r value)*	*Rbf (r value)*	*Sigmoid (r value)*
1		0.8950	-0.0571	-0.0574	-0.0572
2	C=0.01	0.933	-0.0574	-0.0574	-0.05748
3	C=10	-2.43	-0.0536	-0.0568	-0.0547
4	C=100	-357.0	-0.0198	-0.0507	-0.0304
5	C=1000	-36014	0.2661	0.0067	0.1856

The svm Regression use r2 value. (C Parameter linear c=0.01=0.933)

3. Decision Tree Regression

S.NO	*Criterion*	*Splitter*	*Max_features*	*r2 Value*
1	Squared _error	best	sqrt	0.4534
2	Squared _error	best	log2	-0.612
3	Squared _error	random	sqrt	0.653
4	Squared _error	random	log2	0.493
5	Friedman _mse	best	sqrt	0.354
6	Friedman _mse	best	log2	0.762
7	Friedman _mse	random	sqrt	0.401
8	Friedman _mse	random	log2	0.601
9	Absolute _error	best	sqrt	0.716
10	Absolute _error	best	log2	0.777
11	Absolute _error	random	sqrt	0.402
12	Absolute _error	random	log2	0.751
13	Poisson	best	sqrt	0.758
14	Poisson	best	log2	0.862
15	Poisson	random	sqrt	0.652
16	Poisson	random	log2	0.337
17	Squared _error	best		0.916
18	Squared _error	random		0.893
19	Friedman _mse	best		0.907
20	Friedman _mse	random		0.908
21	Absolute _error	Best		0.961
22	Absolute _error	random		0.878
23	Poisson	Best		0.923
24	Poisson	Random		0.933

The Decision Tree Regression r2 (Absolute _error,best=0.961)

4. *Random Forest Regression*

S.NO	*Criterion*	*N_ estimators*	*Max _features*	*r2 Value*
1	Squared _error	10		*0.9252*
2	Squared _error	50		*0.9446*
3	Squared _error	100		*0.9460*
4	Friedman _mse	10		*0.9206*
5	Friedman _mse	50		*0.9388*
6	Friedman _mse	100		*0.9412*
7	Absolute _error	10		*0.9281*
8	Absolute _error	50		*0,9401*
9	Absolute _error	100		*0.9459*
10	Poisson	10		*0.9304*
11	Poisson	50		*0.963*
12	Poisson	100		*0.9413*
13	Squared _error	10	*sqrt*	*0.8218*
14	Squared _error	50	*sqrt*	*0.8383*
15	Squared _error	100	*sqrt*	0.775
16	Squared _error	10	Log2	0.8735
17	Squared _error	50	Log2	0.8075
18	Squared _error	100	Log2	0.7457
19	Absolute _error	10	*sqrt*	0.7248
20	Absolute _error	50	*sqrt*	0.7714
21	Absolute _error	100	*sqrt*	0.7898
22	Absolute _error	10	Log2	0.5914
23	Absolute _error	50	Log2	0.7492
24	Absolute _error	100	Log2	0.8289
25	Friedman _mse	10	*sqrt*	0.7560
26	Friedman _mse	50	*sqrt*	0.7756
27	Friedman _mse	100	*sqrt*	0.8166
28	Friedman _mse	10	Log2	0.7595
29	Friedman _mse	50	Log2	0.7860
30	Friedman _mse	100	Log2	0.8222
31	Poisson	10	*sqrt*	0.7335
32	Poisson	50	*sqrt*	0.7360
33	Poisson	100	*sqrt*	0.6974
34	Poisson	10	Log2	0.7651
35	Poisson	50	Log2	0.7920
36	Poisson	100	Log2	0.7661

The Random Forest Regression r2 value (Squared _error, n _estimators=100) = *0.9460*

Adaboost

S.NO	***N_ estimators***	***loss***	***r2 Value***
1	10	Linear	0.8432
2	50	Linea’	0.8447
3	100	Linear	0.8447
4	10	square	0.73062
5	50	square	0.5853
6	100	square	0.4661
.7	10	exponential	0.8266
8	50	exponential	0.6292
9	100	exponential	0.5385

The Adaboost Regression r2 value= (***N_ estimators=50,linea,r2=8447)***