

To find the following Machine Learning regression method using r2 value

### 1.MULTIPLE LINEAR REGRESSION (R2 value) = 0.8752

### 2.SUPPORT VECTOR MACHINE (R2 value) = 0.8956 (c=3000, kernel='linear')

Sl no	Regularization Parameter (C)	Linear (Kernal)	RBF – Non Linear (Kernal)	POLY (Kernal)	SIGMOID (Kernal)
1	Default 1.0	-0.0556	-0.0574	-0.0571	-0.0572
2	10	-0.0396	-0.0568	-0.0536	-0.0547
3	100	0.1064	-0.0507	-0.0198	-0.0304
4	1000	0.7802	0.0067	0.2661	0.1850
5	2000	0.8767	0.0675	0.4810	0.3970
6	3000	0.8956	0.1232	0.6370	0.5913

### 3.DECISION TREE (R2 value) = 0.9489 (criterion=' absolute\_error, splitter='best')

Sl no	Criterion	Splitter	Max features	R Value
1	squared_error	Best	None	0.9004
2	squared_error	Random	None	0.8994
3	squared_error	Best	Sqrt	-0.0127
4	squared_error	Random	Sqrt	0.8434
5	squared_error	Best	Log2	-0.9479
6	squared_error	Random	Log2	-0.4547
7	friedman_mse	Best	None	0.9218
8	friedman_mse	Random	None	0.9396
9	friedman_mse	Best	Sqrt	0.8368
10	friedman_mse	Random	Sqrt	0.3850
11	friedman_mse	Best	Log2	0.7952
12	friedman_mse	Random	Log2	-0.7694
13	absolute_error	Best	None	0.9489
14	absolute_error	Random	None	0.9250
15	absolute_error	Best	Sqrt	0.5626
16	absolute_error	Random	Sqrt	0.8786
17	absolute_error	Best	Log2	0.9281
18	absolute_error	Random	Log2	0.5048
19	Poisson	Best	None	0.9230
20	Poisson	Random	None	0.9221
21	Poisson	Best	Sqrt	0.3345
22	Poisson	Random	Sqrt	-0.2558

23	Poisson	Best	Log2	0.3303
24	poisson	Random	Log2	-0.7017