Aim:

To Find the Machine Learning regression method using R2 value

➔ Multiple Linear Regression (R2 value) = 0.9358

➔ Support Vector Machine (SVM):

S.no	Hyper Parameter	Linear	RBF	Poly	Sigmoid
1	C10	-0.0396	-0.0568	-0.0536	-0.0547
2	C100	0.1064	-0.0507	-0.0198	-0.0304
3	C500	0.5928	-0.0243	0.1146	0.0705
4	C1000	0.7802	0.0067	0.2661	0.1850
5	C2000	0.8767	0.675	0.4810	0.3970
6	C3000	0.8956	0.1232	0.6370	0.5913

➔ Decision Tree:

S.no	Criterion	Max_Features	Splitter	R Value
1	*squared_error*	None	Best	0.9102
2	*squared_error*	None	Random	0.8899
3	*squared_error*	Sqrt	Best	0.7309
4	*squared_error*	Sqrt	Random	0.0101
5	*squared_error*	Log2	Best	0.9424
6	*squared_error*	Log2	Random	-0.6683
7	MAE	None	Best	0.9514
8	MAE	None	Random	0.9259
9	MAE	Sqrt	Best	-0.1238
10	MAE	Sqrt	Random	0.5089
11	MAE	Log2	Best	0.9153
12	MAE	Log2	Random	0.7662
13	*friedman_mse*	None	Best	0.9131
14	*friedman_mse*	None	Random	0.8718
15	*friedman_mse*	Sqrt	Best	0.0141
16	*friedman_mse*	Sqrt	Random	0.8579
17	*friedman_mse*	Log2	Best	0.7243
18	*friedman_mse*	Log2	Random	0.6102