Hypertuning parameter Exercise

1. Multiple Linear Regression: The best model is 0.93
2. SVM

The best model is created for C3000 and Linear parameter(0.89)

S.No	Hyper tuning parameter	Linear	RBF	Poly	Sigmoid
1	c10	-0.039	-0.056	-0.053	-0.054
2	c100	0.106	-0.05	-0.091	-0.03
3	c1000	0.78	0.006	0.266	0.185
4	c2000	0.876	0.067	0.481	0.397
5	c3000	0.895	0.123	0.637	0.591

3. Decision Tree
   The best model is 0.94

S.No	Criterion	MAX Features	Splitter	R Value
1	Squared_error	None	best	0.91
2	Squared_error	None	random	0.87
3	Squared_error	sqrt	best	0.68
4	Squared_error	sqrt	random	0.29
5	Squared_error	Log2	best	0.52
6	Squared_error	Log2	random	-0.21
7	poisson	None	best	0.91
8	poisson	None	random	0.89
9	poisson	sqrt	best	0.45
10	poisson	sqrt	random	0.62
11	poisson	Log2	best	0.73
12	poisson	Log2	random	0.59
13	Friedman_mse	None	best	0.94
14	Friedman_mse	None	random	0.79
15	Friedman_mse	sqrt	best	0.53
16	Friedman_mse	sqrt	random	0.38
17	Friedman_mse	Log2	best	0.49
18	Friedman_mse	Log2	random	0.35