

To find the following Machine Learning Regression using  $r^2$  value

Sample dataset: "50\_Startups.csv"

1. Multiple Linear Regression: { $r^2$  value = 0.8766}

2. SVM – Support Vector Machine Regression:

S.NO	HYPER PARAMETER	LINEAR (r value)	RBF (NON- LINEAR) (r value)	POLY (r value)	SIGMOID (r value)
1	C=10	-0.0396	-0.0568	-0.05366	-0.0547
2	C=100	0.10646	-0.05072	-0.01980	-0.0304
3	C=500	0.59289	-0.02432	0.1146	0.0705
4	C=1000	0.78028	0.00676	0.2661	0.1850
5	C=2000	0.87677	0.06751	0.48100	0.3970
6	C=3000	0.89567	0.12322	0.63700	0.5913

SVM Regression -  $R^2$  value ( "linear" & hyper parameter C=3000) = 0.89567