Decision Tree:

50_Startups.csv is input for this program.

To found the best model in decision tree algorithm by passing different parameter.

S.No	Criterion	Splitter	R2_score
1	squared_error	best	0.9339070480808462
2	squared_error	random	0.7555012658700746
3	friedman_mse	best	0.9266284446093457
4	friedman_mse	random	0.9262249789432245
5	absolute_error	best	0.9497896117898206
6	absolute_error	random	0.8752296949422379
7	poisson	best	0.946802708372881
8	poisson	random	0.9339903758036542

Highlighted model is best model based on r2_score value.

SVM:

To found the best model in SVM algorithm by passing different parameter.

S.No	kernel	C	R2_score
1	rbf	0.001	-0.05748622247605617
2	rbf	0.01	-0.05748561138150854
3	rbf	10	-0.05680759285862336
4	rbf	1000	0.0067683444800727965
5	rbf	10000	0.37189506360095503
6	linear	0.001	-0.05748449448056192
7	linear	0.01	-0.05746833153215891
8	linear	10	-0.03964494678192798
9	linear	1000	0.7802839882154126
10	linear	10000	0.9239983428118113
11	poly	0.001	-0.05748590790400998
12	poly	0.01	-0.05748246566584592
13	poly	10	-0.05366720512712608
14	poly	1000	0.26616370931646915
15	poly	10000	0.8129628367020232
16	sigmoid	0.001	-0.05748601341465309
17	sigmoid	0.01	-0.057483520769823215
18	sigmoid	10	-0.05471958332940319
19	sigmoid	1000	0.18506861974160804
20	sigmoid	10000	0.8535311196368867