To find the following the machine learning regression method using the R2 value

Dataset : -

One dataset check the all algorithm

https://github.com/pranava007/AI_Support_Vector_Machine_Kernal-linear_ML/blob/main/50_Startups.csv

Linear Regression Parameter Combination:

https://github.com/pranava007/AI_ML_Regression_Parameter/blob/main/LinearRegression.txt

S.NO	fit_intercept	copy_X	n_jobs	positive	Result
1	True	True	None	False	0.9346154505630161
2	False	True	None	False	0.7246292746704208
3	True	True	None	True	0.9346154505630488
4	True	False	None	False	0.9346154505630161
5	True	True	-1	False	0.9346154505630161
6	True	False	-1	False	0.9346154505630161
7	False	True	None	True	0.7259317180510457
8	True	True	-1	True	0.9346154505630488
9	True	False	None	True	0.9346154505630488
10	False	False	-1	True	0.7259317180510457

Support Vector Regression Parameter Combination:

https://github.com/pranava007/AI_ML_Regression_Parameter/blob/main/2.Support%20Vector%20Regression.txt

S.NO	Support Vector Regression Parameter	Result
1	SVR(kernel='rbf', degree=3, gamma='scale', coef0=0.0, tol=0.001, C=1.0, epsilon=0.1, shrinking=True, cache_size=200, verbose=False, max_iter=-1)	0.05731730927224388
2	SVR(kernel='linear', C=1.0, epsilon=0.1)	0.8950779235664468
3	SVR(kernel='poly', degree=5, coef0=1.0, C=10, epsilon=0.2)	0.5778244325928094
4	SVR(kernel='rbf', gamma=0.1, C=100, epsilon=0.05)	-0.05748629037548025
5	SVR(kernel='rbf', gamma='scale', C=0.1, epsilon=0.5)	-0.057469387821565965
6	SVR(kernel='rbf', shrinking=False, cache_size=100, max_iter=1000)	-0.05731730927224388
7	SVR(kernel='rbf', gamma='scale', C=1.0, epsilon=0.01)	-0.05731730927224388
8	SVR(kernel='rbf', gamma='scale', C=1000, epsilon=0.1)	0.16060029222433436
9	SVR(kernel='rbf', tol=0.01, C=1.0, epsilon=0.1)	-0.05731730927224388
10	SVR(kernel='rbf', gamma='scale', C=1.0, cache_size=500)	-0.05731730927224388

Decision Tree Regression Parameter Combination:

https://github.com/pranava007/AI_ML_Regression_Parameter/blob/main/3.Decision%20Tree%20Regressor.txt

S.NO	Decision Tree Regression Parameter	Result
1	DecisionTreeRegressor()	0.8564483541321801
2	DecisionTreeRegressor(max_depth=5)	0.9230043881980069
3	DecisionTreeRegressor(min_samples_split=10)	0.8797543131834846
4	DecisionTreeRegressor(min_samples_leaf=5)	0.8797543131834844
5	DecisionTreeRegressor(min_impurity_decrease=0.01)	0.9291227690925798
6	DecisionTreeRegressor(splitter='random', random_state=42)	0.8208062346111542
7	DecisionTreeRegressor(max_features='sqrt')	0.6008340695991046
8	DecisionTreeRegressor(max_leaf_nodes=20)	0.9034645205879723
9	DecisionTreeRegressor(ccp_alpha=0.01)	0.893499650466469
10	DecisionTreeRegressor(max_depth=10,min_samples_split=5,min_samples_leaf=3,max_leaf_nodes=50,random_state=42)	0.8968676336851397
11	DecisionTreeRegressor(max_features='log2', max_depth=7, random_state=42)	-0.5139868232143152
12	DecisionTreeRegressor(splitter='random', min_impurity_decrease=0.02, random_state=0)	0.7159909645262647