To find following the machine learning regression method using in r2 value

1.MULTIPLE LINEAR REGRESSION (R2 value)= 0.9358680

2.SUPPORT VECTOR MACHINE:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S.NO | HYPER PARAETER | LINEAR  (r value) | RBF  (Non-Linear) (r-Value) | POLY  (r-Value) | SIGMOID  (r-Value) |
| 1 | C10 | -0.057486 | -0.057486 | -0.057486 | -0.057486 |
| 2 | C100 | -0.057486 | -0.057486 | -0.057486 | -0.057486 |
| 3 | C500 | -- | -0.055056 | -0.057486 | -0.057486 |
| 4 | C1000 | -- | -0.0513450 | -- | -0.0574862 |

The SVM Regression R2 value non linear (rbf) = -0.057486

3.DECISION TREE :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.NO | CRITERION | MAX FEATURES | SPLITTER | R-VALUE |
| 1 | Friedman\_mse | auto | best | 0.9076198 |
|  | Friedman\_mse | auto | random | 0.9076198 |
| 2 | Friedman\_mse | Sqrt | best | 0.9076198 |
| 3 | Friedman\_mse | Log2 | Best | 0.9076198 |
| 4 | Friedman\_mse | Log2 | random | 0.9076198 |

The Decision Tree Regression R2 value friedman\_mse=0.9076198