SVM

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.No** | **penalty** | ***linear*** | ***Poly*** | ***rbf*** | ***sigmoid*** |
| 1 | C10 | -0.039651324 | 0.895681917 | -0.056814038 | -0.054726019 |
| 2 | C100 | 0.106458267 | -0.019808325 | -0.050732472 | -0.030465265 |
| 3 | C1000 | 0.780290359 | 0.266159226 | -0.050732472 | 0.185073478 |
| 4 | C2000 | 0.876778608 | 0.480994969 | 0.06750889 | 0.397064207 |
| 5 | C3000 | 0.895681917 | 0.637000822 | 0.123220874 | 0.591364475 |

Linear C3000 = 0.895681917

**Decision Tree**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.No | **criterion** | **Splitter** | **Max\_features** | **r\_score** |
| 1 | 'squared\_error' | Random | sqrt | -0.749859472 |
| 2 | 'squared\_error' | Random | log2 | 0.258704883 |
| 3 | 'squared\_error' | best' | sqrt | 0.32646399 |
| 4 | 'squared\_error' | best' | log2 | 0.155681926 |
| 5 | ***friedman\_mse*** | Random | sqrt | 0.155681926 |
| 6 | ***friedman\_mse*** | Random | log2 | 0.155681926 |
| 7 | ***friedman\_mse*** | best' | sqrt | 0.23446708 |
| 8 | ***friedman\_mse*** | best' | log2 | 0.951690559 |
| 9 | ***absolute\_error*** | Random | sqrt | 0.610152584 |
| 10 | ***absolute\_error*** | Random | log2 | 0.833439634 |
| 11 | ***absolute\_error*** | best' | sqrt | 0.690548234 |
| 12 | ***absolute\_error*** | best' | log2 | 0.558884925 |
| 13 | ***poisson*** | Random | sqrt | 0.791630396 |
| 14 | ***poisson*** | Random | log2 | 0.464295096 |
| 15 | ***poisson*** | best' | sqrt | 0.927664086 |
| 16 | ***poisson*** | best' | log2 | 0.738566926 |

Friedmn mse –best-log2 = 0.951690559