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

1. **MULTIPLE LINEAR REGRESSION(***R2 value)= 0.9358680892466282*
2. **SUPPORT VECTOR MACHINE:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.NO** | **HYPER PARAMETER** | **LINEAR**  **(r value)** | **RBF(NON LINEAR)**  **(r value)** | **POLY**  **(r value)** | **SIGMOID**  **(r value)** |
| 1 | C0.1 | -0.057313156 | -0.057485945 | -0.057454488 |  |
| 2 | C1 |  | -0.057424838 |  |  |
| 3 | C10 | -0.039651324 |  |  |  |
| 4 | C100 | 0.106458267 | -0.050732472 | -0.019808325 | -0.030465265 |
| 5 | C1000 |  |  |  | 0.185073478 |
| 6 | C10000 |  |  | 0.812963535 | 0.853532849 |
| 7 | C100000 | 0.930124471 |  |  |  |

The SVM Regression use R2 value (Linear) and hyper parameter (C100000))=0.93

1. **DECISION TREE**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl.No** | **Criterion** | **Splitter** | **R Value** |
| 1 | squared\_error | best | 0.912998223 |
| 2 | friedman\_mse | best | 0.92184402 |
| 3 | absolute\_error | best | 0.935670985 |
| 4 | poisson | best | 0.928259629 |
| 5 | squared\_error | random | 0.896506963 |
| 6 | friedman\_mse | random | 0.779749926 |
| 7 | absolute\_error | random | 0.774207199 |
| 8 | poisson | random | 0.932766575 |