1. **Multiple Linear Algorithm:** R\_Score = 0.86060
2. **SVM:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***Sno*** | ***HyperParam*** | ***linear*** | ***poly*** | ***rbf*** | ***sigmoid*** |
| 1 | C10 | 0.23984 | -0.05951 | -0.1220 | -0.12608 |
| 2 | C100 | -74.97531 | 0.41435 | -0.107626 | -0.1288 |
| 3 | C500 | Execution time is more | 0.64342 | -0.007817 | -0.14125 |
| 4 | C0.5 | 0.9044806 | -0.12058 | -0.125599 | -0.12579 |
| 5 | C0.1 | 0.919877 | -0.124743 | -0.125747 | -0.1257 |
| 6 | C1000 | Execution time is more | 0.6671560 | 0.0409523 | -0.1571 |

1. **Decision Tree:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Sno*** | ***Criterion*** | ***Max\_features*** | ***Splitter*** | ***R Score*** |
| 1 | *squared\_error* | *sqrt* | *best* | 0.8848 |
| 2 | *friedman\_mse* | *sqrt* | *best* | 0.285616 |
| 3 | *absolute\_error* | *sqrt* | *best* | 0.70457 |
| 4 | *poisson* | *sqrt* | *best* | 0.09151 |
| 5 | *squared\_error* | *sqrt* | *random* | 0.3989 |
| 6 | *friedman\_mse* | *sqrt* | *random* | 0.68415 |
| 7 | *absolute\_error* | *sqrt* | *random* | -0.525 |
| 8 | *poisson* | *sqrt* | *random* | 0.0915 |
| 9 | *squared\_error* | *log2* | *best* | 0.7928 |
| 10 | *friedman\_mse* | *log2* | *best* | 0.7833 |
| 11 | *absolute\_error* | *log2* | *best* | 0.771 |
| 12 | *poisson* | *log2* | *best* | 0.7718 |
| 13 | *squared\_error* | *log2* | *random* | 0.6853 |
| 14 | *friedman\_mse* | *log2* | *random* | 0.04404 |
| 15 | *absolute\_error* | *log2* | *random* | 0.7487 |
| 16 | *poisson* | *log2* | *random* | 0.4565 |
| 17 |  |  |  |  |
| 18 |  |  |  |  |

**RandomForest**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Sno*** | ***Criterion*** | ***Max\_features*** | ***n\_estimators*** | ***R Score*** |
| 1 | *squared\_error* | *sqrt* | 50 | 0.8417 |
| 2 | *friedman\_mse* | *sqrt* | 50 | 0.8438 |
| 3 | *absolute\_error* | *sqrt* | 50 | 0.8408 |
| 4 | *poisson* | *sqrt* | 50 | 0.8392 |
| 5 | *squared\_error* | *log2* | 50 | 0.8417 |
| 6 | *friedman\_mse* | *log2* | 50 | 0.8438 |
| 7 | *absolute\_error* | *log2* | 50 | 0.8408 |
| 8 | *poisson* | *log2* | 50 | 0.8392 |
| 9 | *squared\_error* | None | 50 | 0.82793 |
| 10 | *friedman\_mse* | None | 50 | 0.82811 |
| 11 | *absolute\_error* | None | 50 | 0.8198 |
| 12 | *poisson* | None | 50 | 0.82726 |
| 13 | *squared\_error* | *sqrt* | 100 | 0.8425 |
| 14 | *friedman\_mse* | *sqrt* | 100 | 0.84371 |
| 15 | *absolute\_error* | *sqrt* | 100 | 0.8443 |
| 16 | *poisson* | *sqrt* | 100 | 0.8417 |
| 17 | *squared\_error* | *log2* | 100 | 0.84259 |
| 18 | *friedman\_mse* | *log2* | 100 | 0.8437 |
| 19 | *absolute\_error* | *log2* | 100 | 0.8443 |
| 20 | *poisson* | *log2* | 100 | 0.84173 |
| 21 | *squared\_error* | None | 100 | 0.8333 |
| 22 | *friedman\_mse* | None | 100 | 0.8337 |
| 23 | *absolute\_error* | None | 100 | 0.8259 |
| 24 | *poisson* | None | 100 | 0.83453 |