Machine Learning :

SVM – support vector machine

**Model accuracy test with R2 value.**

|  |  |  |
| --- | --- | --- |
| **HYPER PARAMETER** | |  |
| **Kernal** | **C** | **R2 Value** |
| linear | 1.0 | -0.05569157045504447 |
| Poly | 1.0 | -0.05710387514922144 |
| rbf | 1.0 | -0.057418393916219834 |
| sigmoid | 1.0 | -0.057209358534722865 |
|  |  |  |
| linear | 10 | -0.03964494678192798 |
| Poly | 10 | -0.05366720512712608 |
| rbf | 10 | -0.05680759285862336 |
| sigmoid | 10 | -0.05471958332940319 |
|  |  |  |
| linear | 50 | 0.026107177985882024 |
| Poly | 50 | -0.038503464450005076 |
| rbf | 50 | -0.05409873780772467 |
| sigmoid | 50 | -0.04371078540050277 |
|  |  |  |
| linear | 100 | 0.10646819600577351 |
| Poly | 100 | -0.019802139315272305 |
| rbf | 100 | -0.05072602278128757 |
| sigmoid | 100 | -0.03045351486430925 |

**Decision Tree:**

**Model accuracy test with R2 value.**

|  |  |  |
| --- | --- | --- |
| **Criterion** | **Splitter** | **R2 Value** |
| squared\_error | best | 0.9099718754303557 |
| friedman\_mse | best | 0.9131343485656004 |
| absolute\_error | best | 0.9525807911855305 |
| poisson | best | 0.921161858924925 |
|  |  |  |
| squared\_error | random | 0.7776805975709344 |
| friedman\_mse | random | 0.9432781013783296 |
| absolute\_error | random | 0.920350984468237 |
| poisson | random | 0.9440523676416092 |
|  |  |  |