**Machin learning Regression**

1. **Multiple Linear Regression**

R2 Value = 0.9358680970046243

1. **Support Vector Machine**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.No** | **Hyper parameter** | **linear** | **poly** | **rbf** | **sigmoid** |
| 1 | 0.3 | 0.940888432 | -0.055502409 | -0.0574356 | -0.05749 |
|  |  |  |  |  |  |
| 2 | 1 | 0.895077924 | -0.050890118 | -0.0573173 | -0.0575 |
|  |  |  |  |  |  |
| 3 | 0.1 | 0.937521652 | -0.056824517 | -0.0574694 | -0.05749 |
|  |  |  |  |  |  |
| 4 | 0.4 | 0.943940332 | -0.054842073 | -0.0574187 | -0.05749 |
|  |  |  |  |  |  |
| 5 | 0.5 | 0.940616633 | -0.054182216 | -0.0574018 | -0.05749 |

R2 Value = 0.943940332

1. **Decision Tree**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **criterion** | **splitter** | **R.score** |
| 1 | squared\_error | best | 0.977318464 |
| 2 | squared\_error | random | 0.967881147 |
| 3 | friedman\_mse | best | 0.9530324 |
| 4 | friedman\_mse | random | 0.976486124 |
| 5 | absolute\_error | best | 0.972011229 |
| 6 | absolute\_error | random | 0.97393525 |
| 7 | poisson | best | 0.948117007 |
| 8 | poisson | random | 0.973282829 |

R2 Value = 0.977318464