## 1.Multiple Linear Regression = (r value = 0.93)

## 2. [Support Vector Regression](https://scikit-learn.org/stable/auto_examples/svm/plot_svm_regression.html):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| s.no | Hyper parameter | Linear (r value) | Poly (r value) | Rbf (r value) | Sigmoid (r value) |
| 1 | C=10 | 0.534 | 0.253 | -0.055 | -0.057 |
| 2 | C=100 | -0.739 | 0.465 | -0.030 | -0.058 |
| 3 | without | 0.877 | -0.050 | -0.057 | -0.057 |

**Parameters: (“ linear” ) gives the r score value close to 1 to predict the good model.**

## 3. Decision Tree:

|  |  |  |  |
| --- | --- | --- | --- |
| **S.no** | **Criterion** | **Splitter** | **R value** |
| 1 | squared\_error | best | 0.912 |
| 2 | squared\_error | random | 0.840 |
| 3 | friedman\_mse | best | 0.910 |
| 4 | friedman\_mse | random | 0.828 |
| 5 | absolute\_error | best | 0.946 |
| 6 | absolute\_error | random | 0.830 |
| 7 | poisson | best | 0.932 |
| 8 | poisson | random | 0.830 |

**Parameters: (Criterion:** “absolute\_error”, **Splitter**:” best” **gives the r score value close to 1 to predict the good model**