1. Decision Tree Hyper Turing Parameters :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.NO** | **criterion** | **max\_features** | **splitter** | **R\_score Value** |
| 0 | default | dedault | default | **0.925** |
| 1 | mse | auto | best | **0.92** |
| 2 | mse | auto | random | **0.82** |
| 3 | mse | sqrt | best | **0.33** |
| 4 | mse | sqrt | random | **0.67** |
| 5 | mse | Log2 | best | **0.73** |
| 6 | mse | Log2 | random | **-1.08** |
| 7 | mae | Log2 | best | **0.74** |
| 8 | mae | auto | random | **0.74** |
| 9 | mae | sqrt | best | 0.52 |
| 10 | mae | sqrt | random | **0.466** |
| 11 | mae | auto | best | **0.92** |
| 12 | mae | auto | random | **0.69** |
| 13 | friedman\_mse | auto | random | **0.77** |
| 14 | friedman\_mse | auto | best | **0.89** |
| 15 | friedman\_mse | sqrt | random | **0.52** |

**The decision tree (mse, auto,best)r2\_score value is=0.93**