**Decision Tree R2 Values:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.No | Criterion | Splitter | Max Features | R Score |
| 1 | squared\_error | best | sqrt | 0.243237 |
| 2 | friedman\_mse | best | sqrt | 0.491512 |
| 3 | absolute\_error | best | sqrt | 0.307365 |
| 4 | poisson | best | sqrt | 0.501832 |
| 5 | squared\_error | random | sqrt | 0.861478 |
| 6 | friedman\_mse | random | sqrt | 0.815181 |
| 7 | absolute\_error | random | sqrt | 0.821813 |
| 8 | poisson | random | sqrt | 0.870031 |
| 9 | squared\_error | best | log2 | -0.45039 |
| 10 | friedman\_mse | best | log2 | 0.734718 |
| 11 | absolute\_error | best | log2 | 0.773914 |
| 12 | poisson | best | log2 | 0.442669 |
| 13 | squared\_error | random | log2 | 0.572099 |
| 14 | friedman\_mse | random | log2 | 0.43628 |
| 15 | absolute\_error | random | log2 | 0.297346 |
| 16 | poisson | random | log2 | 0.701148 |

**Decision Tree high performance with the hyper parameter(Criterion = poisson,Splitter = random,Max Features = sqrt) = 0.870031**