Assignment:

Random Forest Regressor\_hyper paramenter with R2\_score values

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| --- | --- | --- | --- | --- | --- |
| Sl.No | n\_estimators=100 | criterion | max\_features | C\_Value |  |
| 1 | 100 | - | - | 0.825049122017278 |  |
| 2 | 100 | squared\_error | sqrt | 0.8388598173145339 |  |
| 3 | 50 | squared\_error | squrt | 0.8369776106713841 |  |
| 4 | 100 | squared\_error | log2 | 0.8388598173145339 |  |
| 5 | 50 | squared\_error | log2 | 0.8369776106713841 |  |
| 6. | 50 | squared\_error |  | 0.8229257456251617 |  |
| 7 | 100 | squared\_error |  | 0.825049122017278 |  |
| 8 | 100 | friedman\_mse | squrt | 0.8390780475542116 |  |
| 9 | 50 | friedman\_mse | squrt | 0.8374215316807476 |  |
| 10 | 100 | friedman\_mse | log2 | 0.8390780475542116 |  |
| 11 | 50 | friedman\_mse | log2 | 0.8374215316807476 |  |
| 12 | 100 | friedman\_mse |  | 0.8250826780064943 |  |
| 13 | 50 | friedman\_mse |  | 0.823500015895199 |  |
| 14 | 50 | absolute\_error | sqrt | 0.843193121438361 |  |
| 15 | 100 | absolute\_error | sqrt | 0.8439351981692803 |  |
| 16 | 50 | absolute\_error | log2 | 0.843193121438361 |  |
| 17 | 100 | absolute\_error | log2 | 0.8439351981692803 | Best Model |
| 18 | 50 | absolute\_error |  | 0.8263350983004953 |  |
| 19 | 100 | absolute\_error |  | 0.824962769647794 |  |
| 20 | 50 | poisson | sqrt | 0.8409579434651613 |  |
| 21 | 100 | poisson | sqrt | 0.8417099421816833 |  |
| 22 | 50 | poisson | log2 | 0.8409579434651613 |  |
| 23 | 100 | poisson | log2 | 0.8417099421816833 |  |
| 24 | 50 | poisson |  | 0.822504970432274 |  |
| 25 | 100 | poisson |  | 0.8254018510552764 |  |

Best model :

n\_estimators=100,

criterion='absolute\_error'

max\_features='log2’

R\_value= 0.8439351981692803