**Assignment-Regression Algorithm**

Problem Statement or Requirement: A client’s requirement is, he wants to predict the insurance charges based on the several parameters. The Client has provided the dataset of the same. As a data scientist, you must develop a model which will predict the insurance charges

**AdaBoostRegressor**

|  |  |  |  |
| --- | --- | --- | --- |
| S.NO | LOSS | N-estimator | R value |
| 1 | square | 100 | 0.4661 |
| 2 | square | 50 | 0.5185 |
| 3 | exponential | 50 | 0.6292 |
| 4 | exponential | 100 | 0.5385 |

AdaBoostRegressor use R value LOSS , exponential and N-estimator ((50)) = 0.6292

**GradientBoostingRegressor**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.NO | loss | criterion | n\_estimators | R value |
| 1 | squared\_error | squared\_error | 50 | 0.8914 |
| 2 | squared\_error | squared\_error | 100 | 0.8833 |
| 3 | squared\_error | friedman\_mse | 100 | 0.8833 |
| 4 | squared\_error | friedman\_mse | 50 | 0.8914 |
| 5 | absolute\_error | friedman\_mse | 50 | 0.8098 |
| 6 | absolute\_error | friedman\_mse | 100 | 0.8588 |

GradientBoostingRegressor use R value (LOSS =squared\_error) , (criterion = squared\_error )and N-estimator ((50)) = 0.8914

Or

GradientBoostingRegressor use R value (LOSS =squared\_error) , (criterion = friedman\_mse)and N-estimator ((50)) = 0.8914