ASSIGNMENT-REGRESSION ALGORITHM

1.IDENTIFY YOUR PROBLEM STATEMENT

Problem identification in AI

Domain Selection/Learning selection

Machine learning/Supervised learning

2.Tell basic info about the dataset (Total number rows, columns)

In a dataset total No.of 1338 rows× 6 columns

3. MENTION THE PRE-PROCESSING METHOD IF YOU'RE DOING ANY (LIKE CONVERTING STRING TO NUMBER – NOMINAL DATA)

I have using nominal data (one hot encoding) for converting a string into a number **(0&1)**

4.DEVELOP A GOOD MODEL WITH R2_SCORE. YOU CAN USE ANY MACHINE LEARNING ALGORITHM; YOU CAN CREATE MANY MODELS. FINALLY, YOU HAVE TO COME UP WITH FINAL MODEL

In machine learning algorithm random forest is give a best performance **R2_Score** is **0.85**

5.ALL THE RESEARCH VALUES (R2_SCORE OF THE MODELS) SHOULD BE DOCUMENTED. (YOU CAN MAKE TABULATION OR SCREENSHOT OF THE RESULTS.)

S.NO	ALGORITHM	R2_SCORE
1	Multiple linear regression	0.78
2	Support vector machine regression	0.76
3	Decision tree regression	0.73
4	**Random forest regression**	**0.85**

6. MENTION YOUR FINAL MODEL, JUSTIFY WHY YOU HAVE CHOSEN THE SAME

Final model: Random Forest I choose random forest because this algorithm works finefor this dataset & it's R2_Score is 0.85. Random forest algorithm is well performance than the other algorithms.