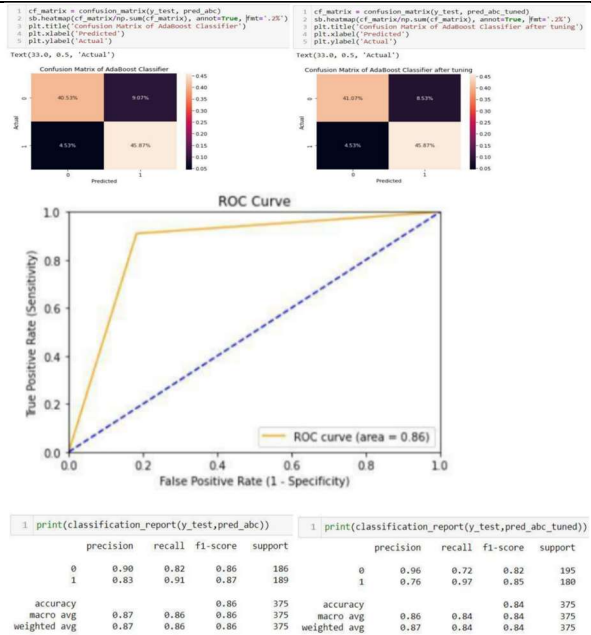
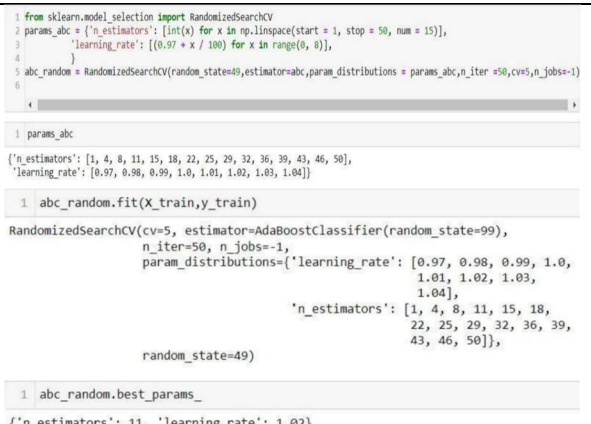


Project Development Phase Model Performance Test

Date	8 November 2023
Team ID	592309
Project Name	Mental Health Prediction Using ML
Maximum Marks	10 Marks

Model Performance Testing:

Project team shall fill the following information in model performance testing template.

S.No.	Parameter	Values	Screenshot
1.	Metrics	<p>Regression Model: MAE , MSE , RMSE , R2 score</p> <p>Classification Model: Confusion Matrix - , Accuracy Score- 0.864 & Classification Report -</p>	 <p>The screenshot displays the performance of an AdaBoost Classifier. It includes two Confusion Matrices: one before tuning and one after tuning. The ROC Curve shows a True Positive Rate (Sensitivity) of approximately 0.9 and a False Positive Rate (1 - Specificity) of approximately 0.1, with an area under the curve of 0.86. The Classification Report provides a detailed breakdown of precision, recall, f1-score, and support for each class, as well as macro and weighted averages.</p>
2.	Tune the Model	<p>Hyperparameter Tuning - RandomizedSearchCV</p> <p>Validation Method - .best_params_ attribute</p>	 <p>The screenshot shows the implementation of RandomizedSearchCV for hyperparameter tuning. The code defines a parameter space for the number of estimators and the learning rate, and then fits the model using RandomizedSearchCV. The resulting best parameters are displayed, showing that the optimal number of estimators is 11 and the optimal learning rate is 1.02.</p>

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