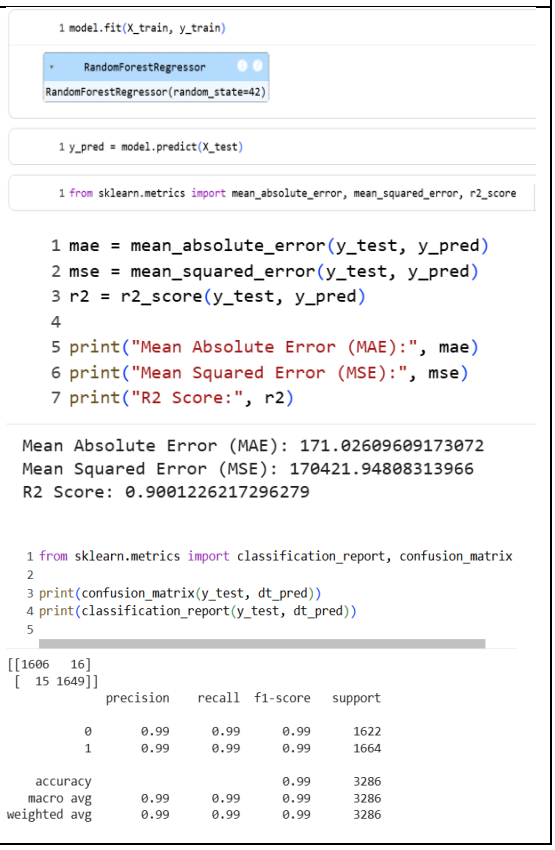
Project Development Phase
Model Performance Test

Date	15 February 2026
Team ID	LTVIP2026TMIDS62246
Project Name	Weather-Based Prediction of Wind Turbine Energy Output: A Next-Generation Approach to Renewable Energy Management
Maximum Marks	10 marks

Model Performance Testing – Wind Turbine Energy Prediction

S.No.	Parameter	Values	Screenshot
1.	Metrics	**Regression Model:** MAE - , MSE - , RMSE - , R2 score - **Classification Model:** Confusion Matrix - , Accuray Score- & Classification Report -	

2.	Tune the Model	Hyperparameter Tuning - Validation Method -	

```python
from sklearn.model_selection import train_test_split

X_train, X_test, y_train, y_test = train_test_split(
    X, y,
    test_size=0.2,
    random_state=42
)

```