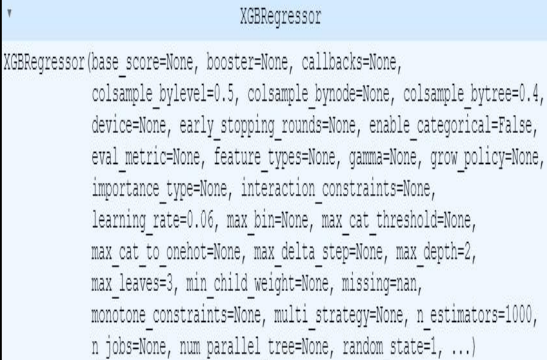
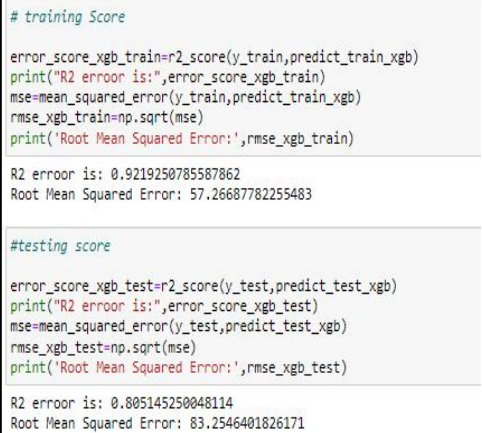


Project Development Phase Model Performance Test

Date	19 November 2023
Team ID	PNT2022TMID-591758
Project Name	Horology 2.0: Forecasting The Future of SmartWatch Prices
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.	Model Summary	<p>XGBoost Regressor is the regression used.</p> <p><u>Parameter Values :</u></p> <p>n_estimators: 1000 learning_rate: 0.06 max_depth: 2 subsample: 0.7 colsample_bytree: 0.4 colsample_bylevel: 0.5 max_leaves: 3 random_state: 1</p>	 <p>XGBRegressor</p> <pre>XGBRegressor(base_score=None, booster=None, callbacks=None, colsample_bylevel=0.5, colsample_bynode=None, colsample_bytree=0.4, device=None, early_stopping_rounds=None, enable_categorical=False, eval_metric=None, feature_types=None, gamma=None, grow_policy=None, importance_type=None, interaction_constraints=None, learning_rate=0.06, max_bin=None, max_cat_threshold=None, max_cat_to_onehot=None, max_delta_step=None, max_depth=2, max_leaves=3, min_child_weight=None, missing=nan, monotone_constraints=None, multi_strategy=None, n_estimators=1000, n_jobs=None, num_parallel_tree=None, random_state=1, ...)</pre>
2.	Accuracy	<p><u>Training Accuracy :</u></p> <p>R-squared (R2): 0.9219 Root Mean Squared Error (RMSE): 57.27</p> <p><u>Validation Accuracy -</u></p> <p>R-squared (R2): 0.8051 Root Mean Squared Error (RMSE): 83.25</p>	 <pre># training score error_score_xgb_train=r2_score(y_train,predict_train_xgb) print("R2 error is:",error_score_xgb_train) mse=mean_squared_error(y_train,predict_train_xgb) rmse_xgb_train=np.sqrt(mse) print('Root Mean Squared Error:',rmse_xgb_train) R2 error is: 0.9219250785587862 Root Mean Squared Error: 57.26687782255483 #testing score error_score_xgb_test=r2_score(y_test,predict_test_xgb) print("R2 error is:",error_score_xgb_test) mse=mean_squared_error(y_test,predict_test_xgb) rmse_xgb_test=np.sqrt(mse) print('Root Mean Squared Error:',rmse_xgb_test) R2 error is: 0.805145250048114 Root Mean Squared Error: 83.2546401826171</pre>