XGBOOST REGRESSION

This code uses **XGBoost regression** to predict the length of a product based on its product type. Here are the step-by-step explanations of the code:

- The necessary libraries are imported: `pandas` for data manipulation, `xgboost` for XGBoost regression, and `mean_absolute_percentage_error` from `sklearn.metrics` to evaluate the model's performance. The training and testing data are loaded from CSV files.

- The training and testing data are combined into one dataset. Missing values are replaced with 0.

- The training and testing features and target variables are selected: `PRODUCT_TYPE_ID` is the feature and `PRODUCT_LENGTH` is the target.

- An instance of XGBoost regressor is created.The XGBoost model is trained on the training data.

- 8. Predictions are made on the testing data using the trained XGBoost model.The mean absolute percentage error (MAPE) between the actual and predicted target values is calculated.

- The MAPE score is printed.A submission file is created with the predicted target values.

Overall, this code trains an XGBoost regression model on the training data to predict the length of a product based on its product type. The model is then evaluated on the testing data using mean absolute percentage error and the predicted values are saved to a submission file.