

RIDGE REGRESSION

The code is implemented through **Ridge Regression** on the given dataset.

- The required packages are imported: pandas for reading and manipulating data, Ridge for the regression model, and mean_absolute_percentage_error for evaluating the performance of the model.
- The train and test data are loaded from CSV files. The train and test data are combined into a single dataframe.
- Missing values in the combined data are replaced with 0.
- The features and target variables are extracted from the train and test data.
- A Ridge regression model is created and trained on the training data.
- The model is used to make predictions on the test data.
- The mean absolute percentage error is calculated between the actual and predicted values.
- The score is printed to the console.
- The predicted values are saved in a new CSV file along with their respective product IDs.

Feature engineering is not done in this code as it is only using one feature 'PRODUCT_TYPE_ID'. The goal is to predict the product length using only this feature. This code shows is implemented through Ridge regression on a dataset using scikit-learn.