



Microsoft Azure

Prediction of Automobile prices using Regression Model in Azure ML Classic Studio.

This experiment predicts the price of a car based on different variables such as make and other technical features. Regression algorithms are used because they make numerical predictions. In this experiment, there are usually three stages mainly such as creating the model, training the model, and score and test the model.

This dataset includes entries for various individual automobiles, which includes information such as make, model, technical specifications, and price. The output shows predicted values for price and the known values from test data.

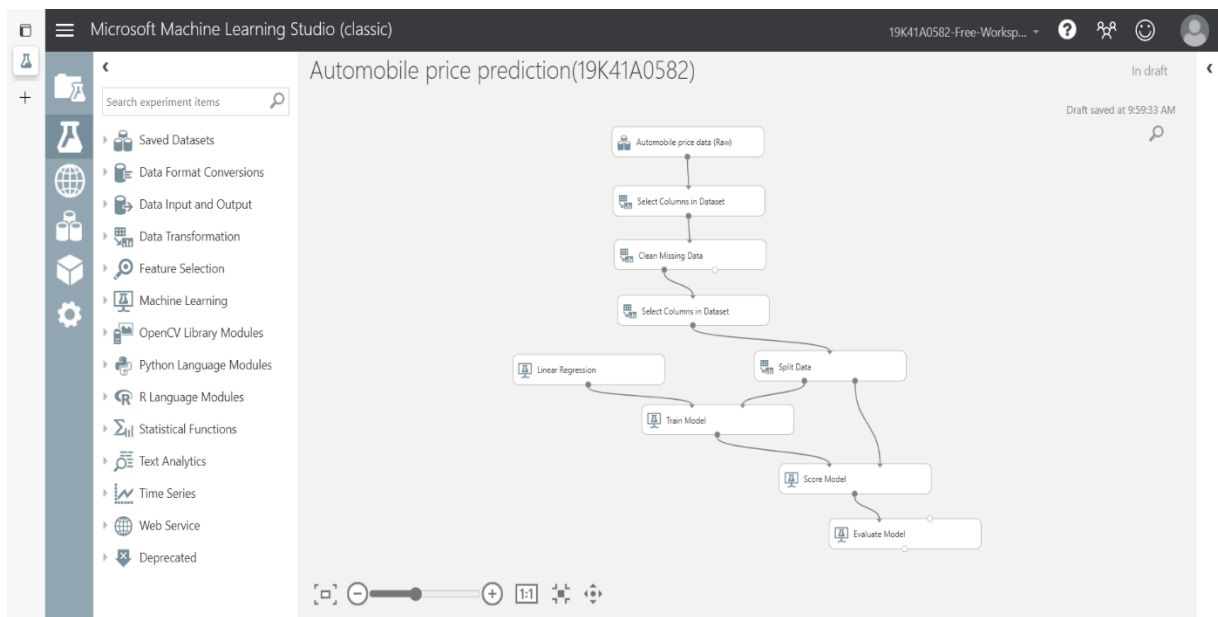
Gallery Link:

<https://gallery.cortanaintelligence.com/Experiment/Automobile-Price-Prediction-19K41A0582>

Machine Learning Project Workflow:

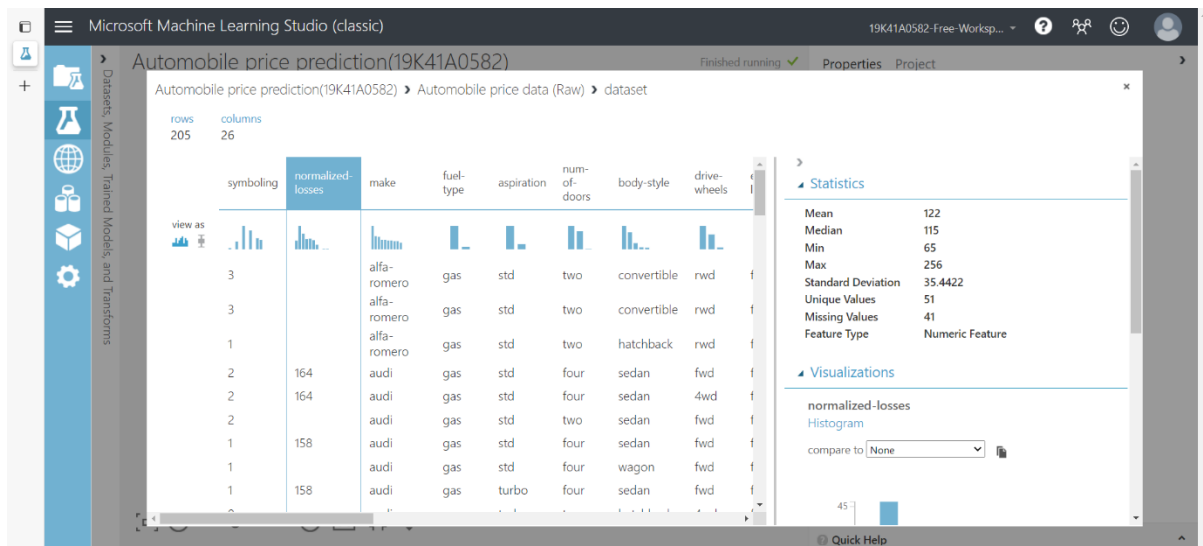
1. Import Data
2. Explore Data (Missing values, outliers)
3. Pre-process data (Missing value imputation, outlier treatment, normalization)
4. Model Selection
5. Model Training
6. Model Testing
7. Model Deployment

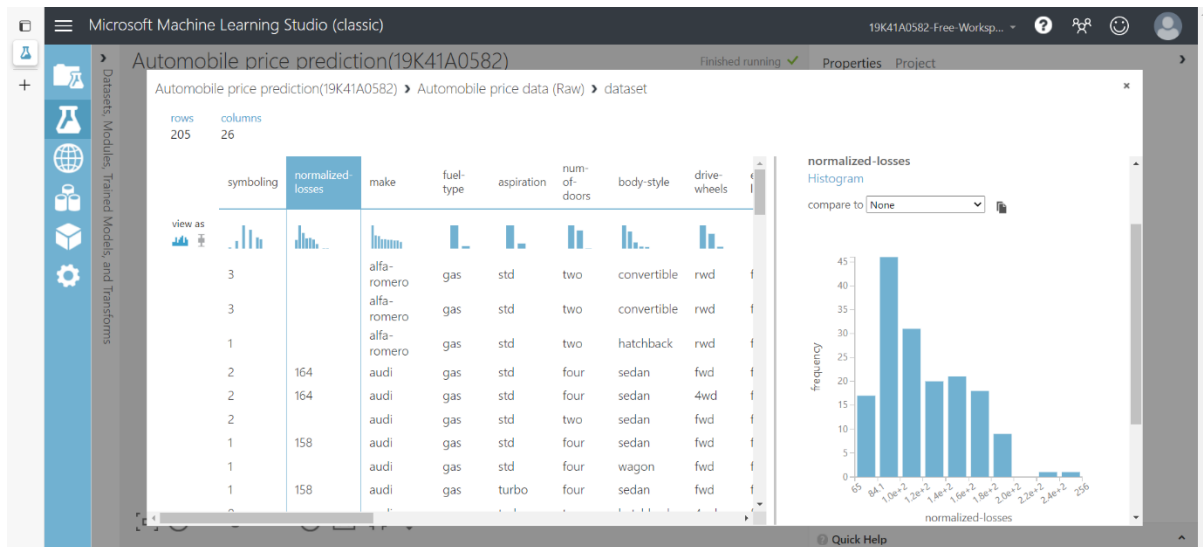
Workflow:



Import Data:

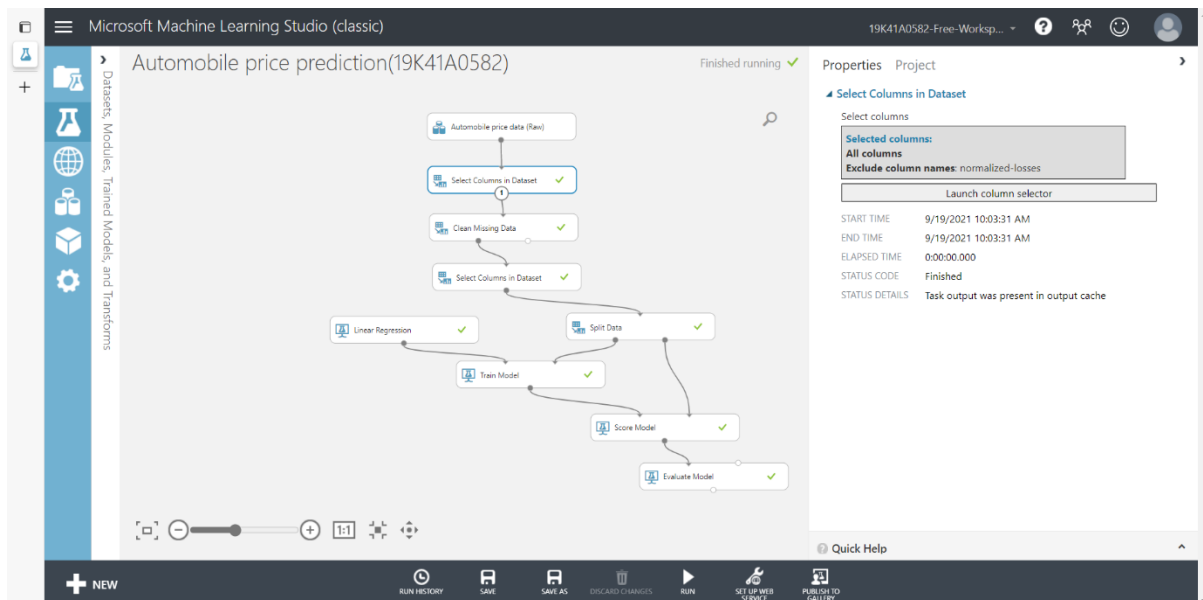
Importing raw dataset of automobile price prediction which is in csv (comma-separated values) format.

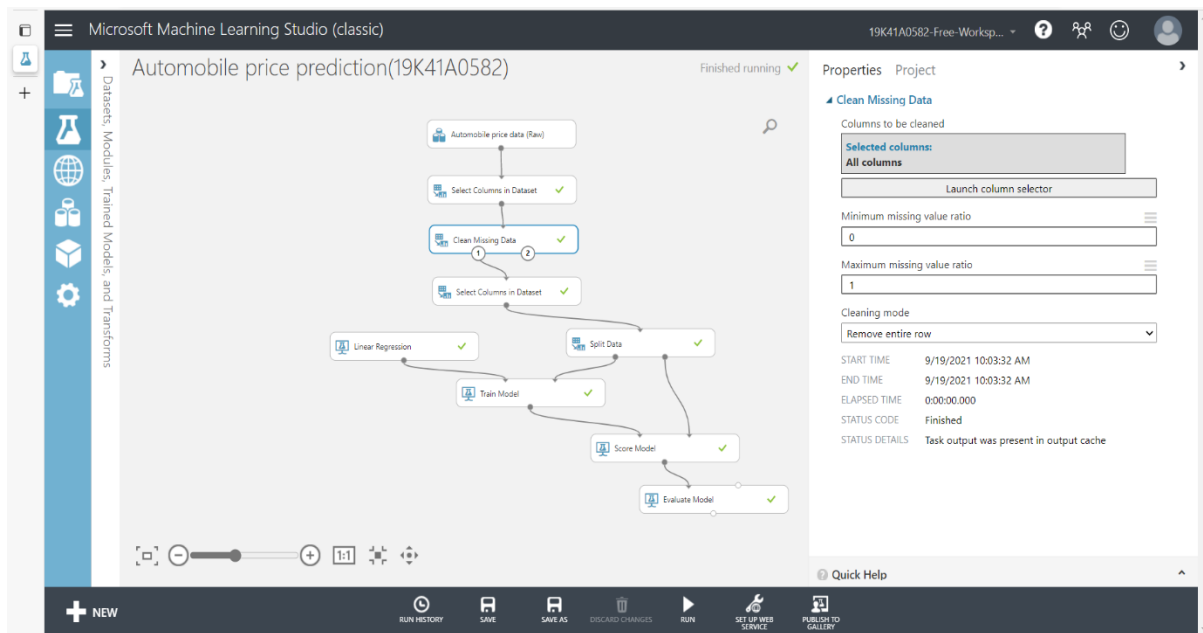




Explore Data:

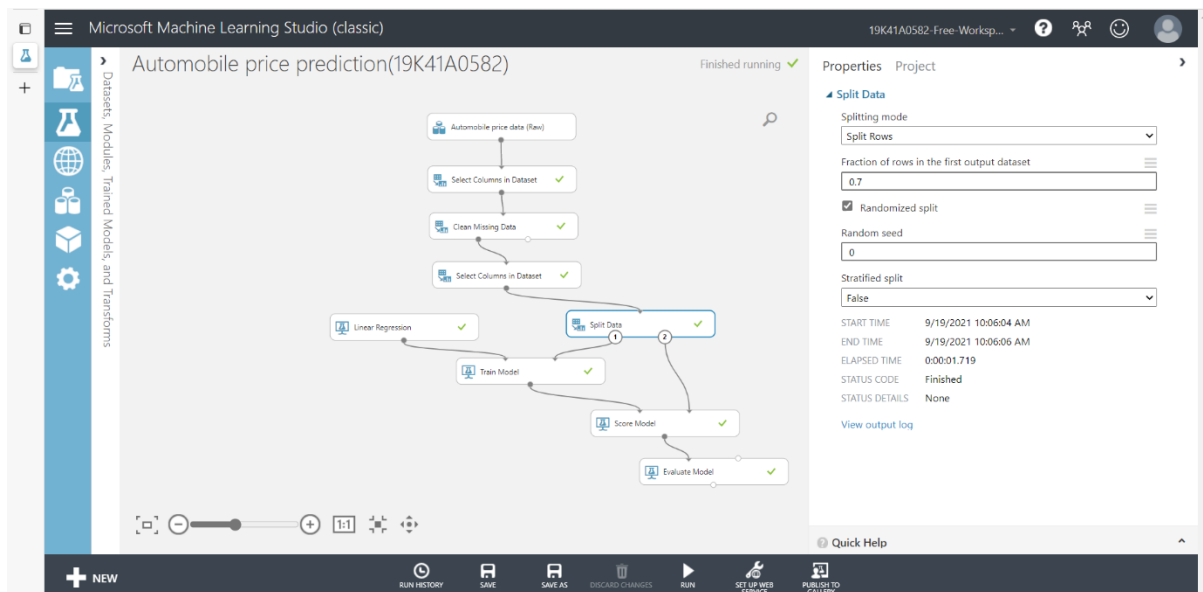
Exploring data includes data visualization which comprises of searching for missing values in the dataset. If any missing values are found in higher number, then that column need to be cleaned.



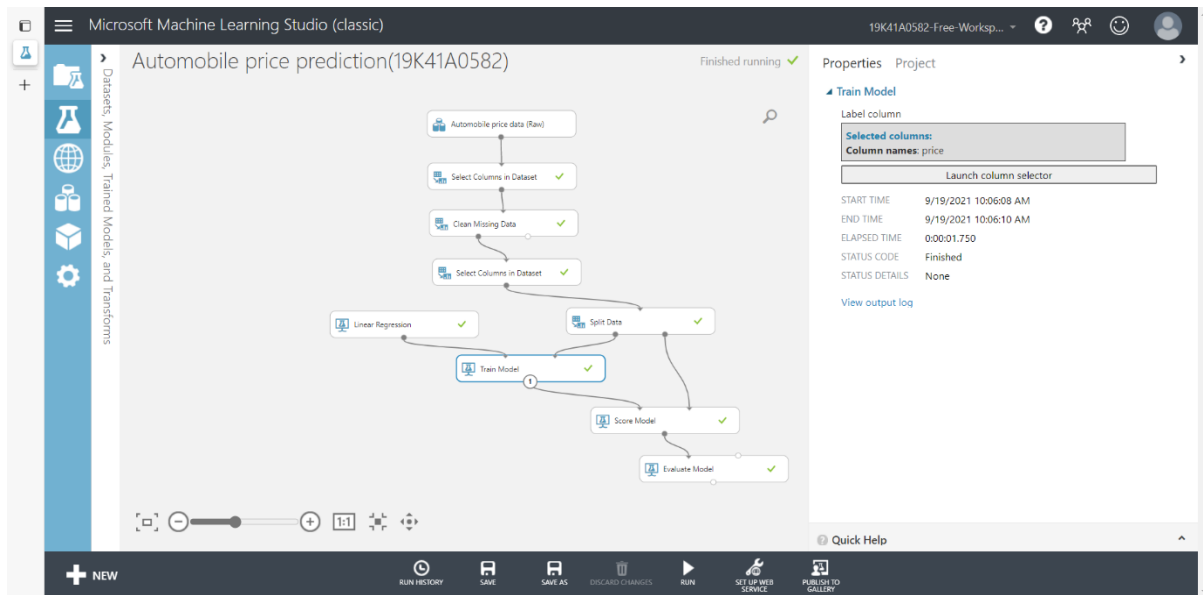


Split Data:

Split data module is used to split the dataset randomly so as it training dataset contains 70% of the original data and testing dataset contains 30% of the original data.

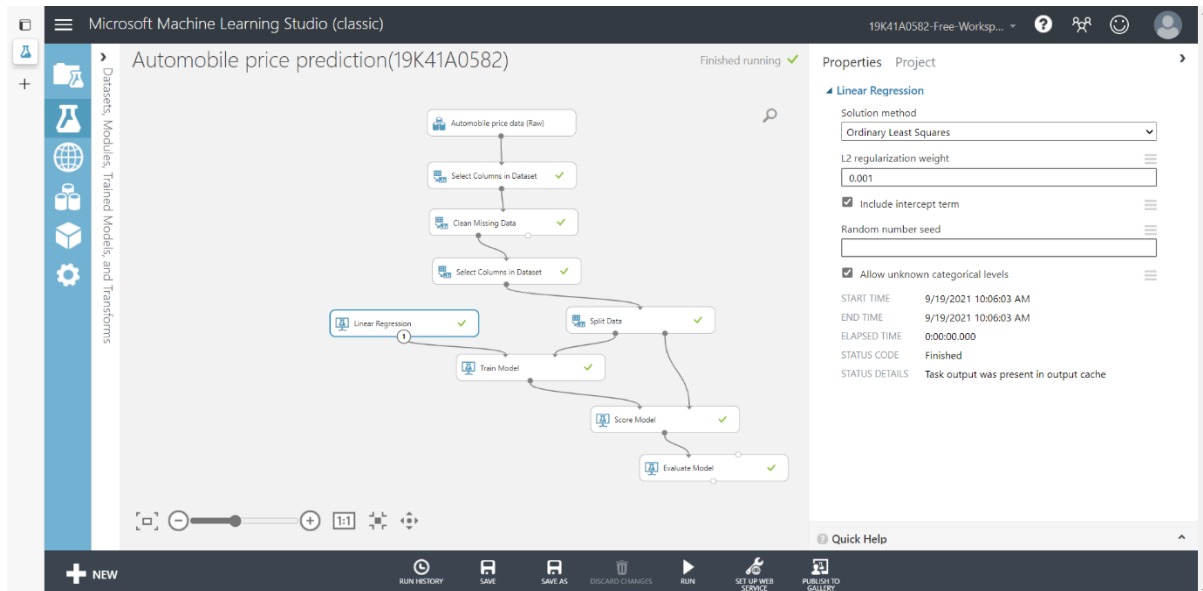


Model Training and Algorithm:



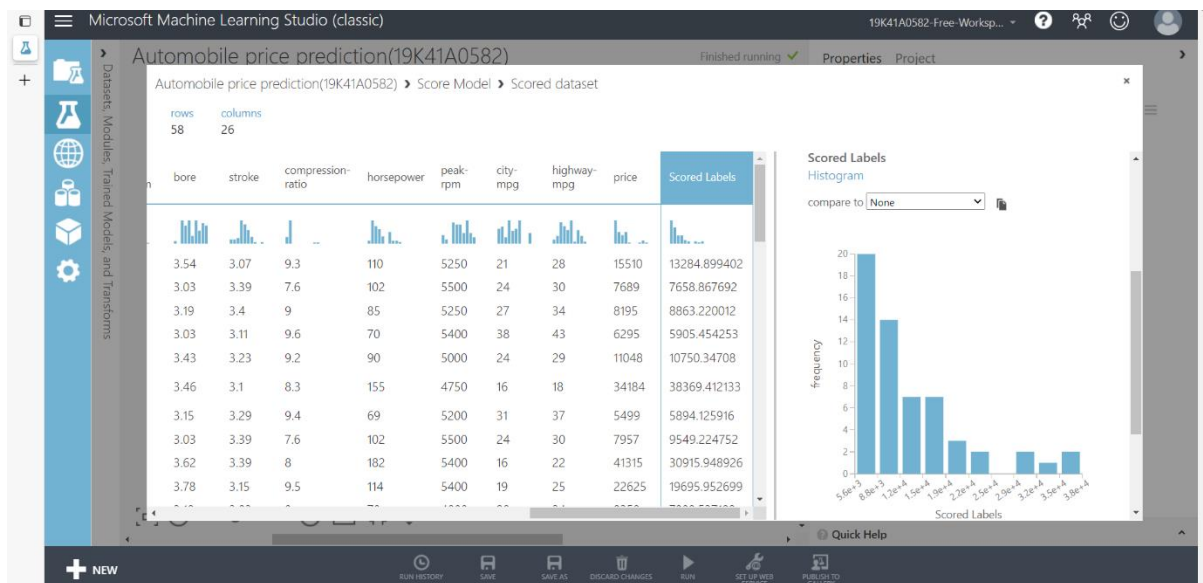
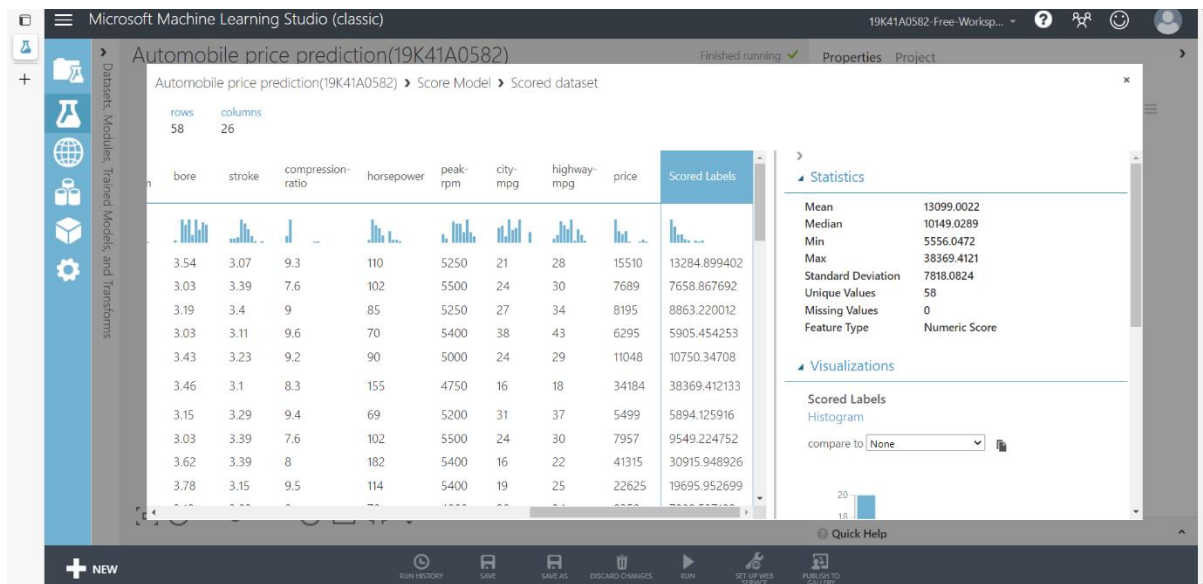
Linear Regression Module is used to train the model:

As the label values (price) in the automobile price prediction are continuous, so we use regression model.



Score Model:

After the model is trained using regression model, in order to generate the predicted values, we use score and evaluate model.



Evaluation Results:

