



DIG DEEP WITH

AZURE MACHINE LEARNING

Use data analysis to take your business to a whole new level.

Microsoft Azure Machine Learning simplifies data analysis and empowers you to find the answers your business needs.

The question isn't whether you can find the answers. *The question is how.*



So, what do you want to find out?

I WANT TO:

Regression

Forecast the future by estimating the relationship between variables.

Predict Values

Estimate product demand

Predict sales figures

Analyze marketing returns

Find Unusual Occurrences

Predict credit risk

Detect fraud

Anomaly Detection
Identify and predict rare or unusual data points.

Catch abnormal equipment readings

Discover Structure

Clustering
Separate similar data points into intuitive groups.

Perform customer segmentation

Predict customer tastes

Determine market price

Predict Categories

Classification
Identify what category new information belongs in.

Predict Between Two Categories

Two-Class Classification

Answers simple
two-choice questions, like yes-or-no, true-or-false.

Is this tweet positive?

Will this customer renew their service?

Which of two coupons draws more customers?

Predict Between Several Categories

Multi-Class Classification

Answers complex
questions with multiple possible answers.

What is the mood of this tweet?

Which service will this customer choose?

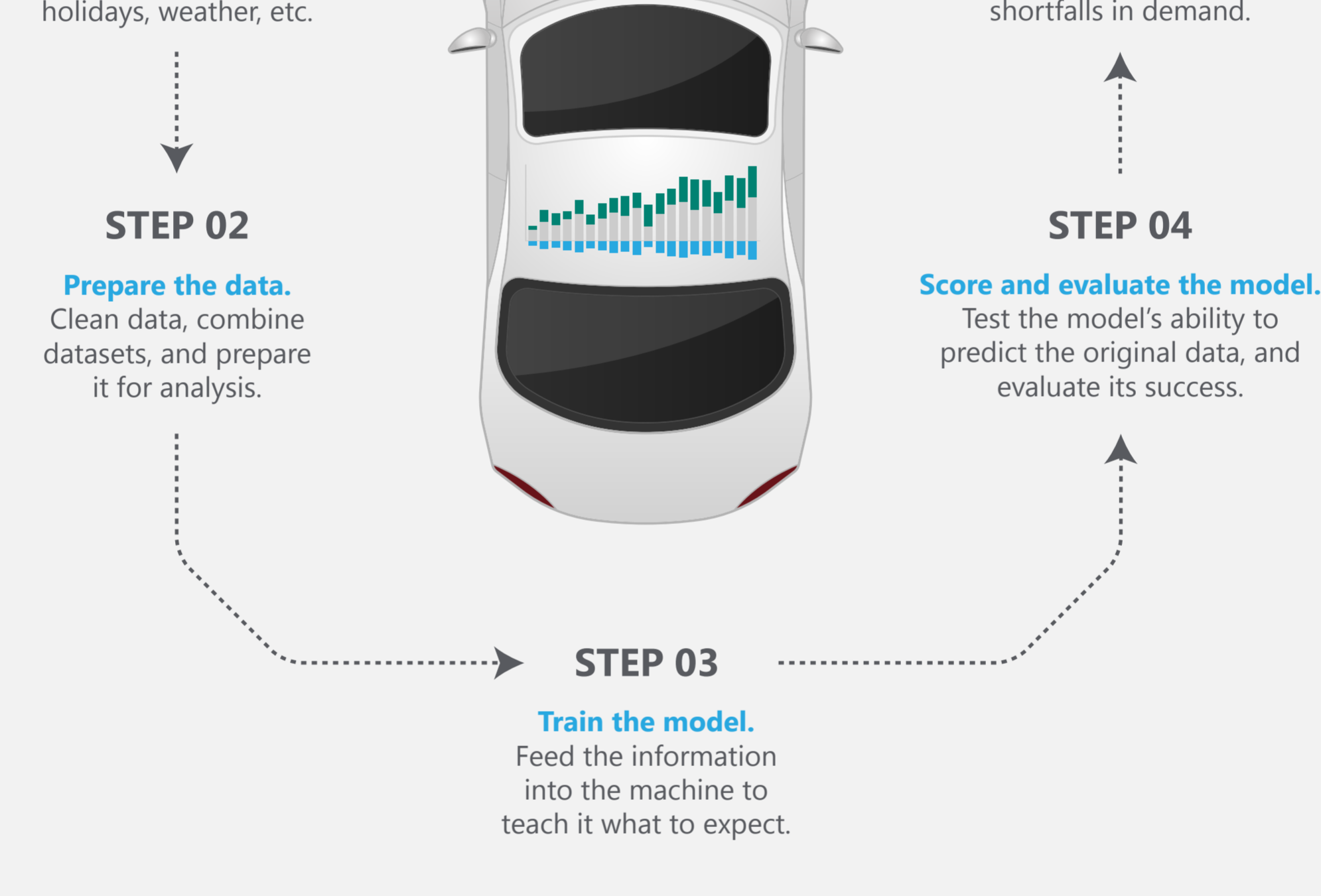
Which of several promotions draws more customers?

Azure Machine Learning works by teaching the software to find patterns in the current data so that it can seek out the patterns in future data.

Let's say you rent cars.

How can you accurately predict demand for your product?

FOR THAT YOU NEED REGRESSION ANALYSIS



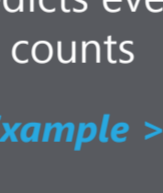
Find out how to do this and more with #AzureML. Visit us at <https://studio.azureml.net/>

ALGORITHM MODULE OPTIONS

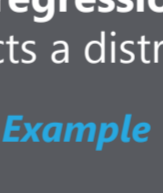
Regression



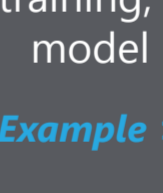
Ordinal Regression
Data in rank ordered categories
[Example >](#)



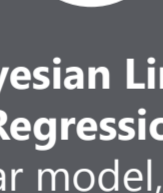
Poisson Regression
Predicts event counts
[Example >](#)



Fast forest quantile regression
Predicts a distribution
[Example >](#)



Linear Regression
Fast training, linear model
[Example >](#)



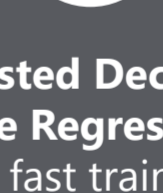
Bayesian Linear Regression
Linear model, small data sets
[Example >](#)



Neural Network Regression
Accurate, long training times
[Example >](#)



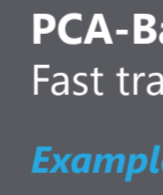
Decision Forest Regression
Accurate, fast training times
[Example >](#)



Boosted Decision Tree Regression
Accurate, fast training times, large memory footprint
[Example >](#)

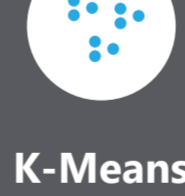
Anomaly Detection

One Class SVM
Under 100 features, aggressive boundary
[Example >](#)



PCA-Based Anomaly Detection
Fast training times
[Example >](#)

Clustering



K-Means
Unsupervised learning
[Example >](#)

Two-Class Classification



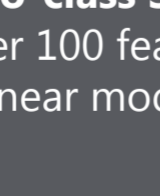
Two-class SVM
Under 100 features, linear model
[Example >](#)



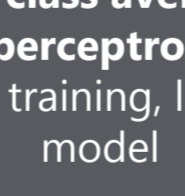
Two-class averaged perceptron
Fast training, linear model
[Example >](#)



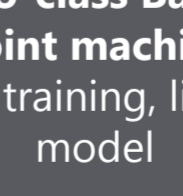
Two-class Bayes point machine
Fast training, linear model
[Example >](#)



Two-class decision forest
Accurate, fast training
[Example >](#)



Two-class logistic regression
Fast training, linear model
[Example >](#)



Two-class boosted decision tree
Accurate, fast training, large memory footprint
[Example >](#)



Two-class decision jungle
Accurate, small memory footprint
[Example >](#)



Two-class locally deep SVM
Under 100 features
[Example >](#)

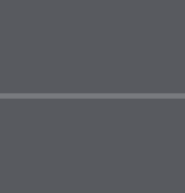


Two-class neural network
Accurate, long training times
[Example >](#)

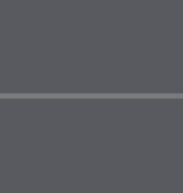
Multiclass Classification



Multiclass logistic regression
Fast training times, linear model
[Example >](#)



Multiclass neural network
Accuracy, long training times
[Example >](#)



Multiclass decision forest
Accuracy, fast training times
[Example >](#)



Multiclass decision jungle
Accuracy, small memory footprint
[Example >](#)



One-v-all multiclass
Depends on the two-class classifier
[Example >](#)