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Advanced Predictive Modeling Using IBM SPSS Modeler (V16)

Information

Length: 1.0 Day

Ref: 0A035G-X

Delivery method: Classroom

Price: EUR

Overview

This course builds on the courses Classifying Customers Using IBM SPSS Modeler (V16) and Predicting Continuous Targets Using IBM SPSS Modeler (V16). It presents advanced techniques to predict categorical and continuous targets. Before reviewing the modeling techniques, data preparation issues are addressed such as partitioning and detecting anomalies. Also, a method to reduce the number of fields to a number of core fields, referred as components or factors, is presented. The next two modules focus on advanced predictive models, such as Decision List, Support Vector Machines and Bayes Net. Following this presentation, two modules present methods to combine individual models into a single model in order to improve predictive power, including running and evaluating many models in a single run, both for categorical and continuous targets.

Public

This intermediate-level course is for users of IBM SPSS Modeler responsible for building predictive models (also known as classification models).

Prerequisites

You should have:

- Completion of the course Introduction to IBM SPSS Modeler and Data Mining (V16)**or** experience in analyzing data with IBM SPSS Modeler.
- Familiarity with basic modeling techniques, either through completion of the courses Classifying Customers Using IBM SPSS Modeler (V16) **and** Predicting Continuous Targets Using IBM SPSS Modeler (V16), **or** by experience with predictive models in IBM SPSS Modeler.

Objective

Please refer to course overview.

Topics

Preparing Data for Modeling

- Addressing general data quality issues
- Handling anomalies
- Selecting important predictors
- Partitioning the data to better evaluate models
- Balancing the data to build better models

Reducing Data with PCA/Factor

- Explain the basic ideas behind PCA/Factor
- Customize two options in the PCA/Factor node

Using Decision List to Create Rulesets

- Explain how Decision List builds a ruleset
- Using Decision List interactively
- Creating rulesets directly with Decision List

Advanced Predictive Models

- Explain the basic ideas behind SVM
- Customizing two options in the SVM node
- Explain the basic ideas behind Bayes Net
- Customizing two options in the SVM node

Combining Models

- Using the Ensemble node to combine model predictions
- Improving the model performance by meta-level modeling

Finding the Best Predictive Model

- Find the best model for categorical targets
- Find the best model for continuous targets