Introduction to Machine Learning Models Using IBM SPSS Modeler (V18.2)

Duration: 2 Days **Course Code: 0A079G**

Overview:

This course provides an introduction to supervised models, unsupervised models, and association models. This is an application-oriented course and examples include predicting whether customers cancel their subscription, predicting property values, segment customers based on usage, and market basket analysis.

Target Audience:

Data scientistsBusiness analystsClients who want to learn about machine learning models

Objectives:

- Please refer to course overview

Prerequisites:

- Knowledge of your business requirements

Content:

Taxonomy of machine learning models

Identify measurement levels

Taxonomy of supervised models

Build and apply models in IBM SPSS Modeler

Supervised models: Decision trees - CHAID

CHAID basics for categorical targets

Include categorical and continuous predictors

CHAID basics for continuous targets

Treatment of missing values

Supervised models: Decision trees - C&R Tree

C&R Tree basics for categorical targets

Include categorical and continuous predictors

C&R Tree basics for continuous targets

Treatment of missing values

Evaluation measures for supervised models

Evaluation measures for categorical targets

Evaluation measures for continuous targets

Supervised models: Statistical models for continuous targets - Linear regression

Linear regression basics

Include categorical predictors

Treatment of missing values

Supervised models: Statistical models for categorical targets - Logistic regression

Logistic regression basics

Include categorical predictors

Treatment of missing values

Supervised models: Black box models - Neural networks

Neural network basics

Include categorical and continuous predictors

Treatment of missing values

Supervised models: Black box models - Ensemble models

Ensemble models basics

Improve accuracy and generalizability by boosting and bagging

Ensemble the best models

Unsupervised models: K-Means and Kohonen

K-Means basics

Include categorical inputs in K-Means

Treatment of missing values in K-Means

Kohonen networks basics

Treatment of missing values in Kohonen

Unsupervised models: TwoStep and Anomaly detection

TwoStep basics

TwoStep assumptions

Find the best segmentation model automatically

Anomaly detection basics

Treatment of missing values

Association models: Apriori

Apriori basics

Evaluation measures

Treatment of missing values

Association models: Sequence detection

Sequence detection basics

Treatment of missing values

Preparing data for modeling

Examine the quality of the data

Select important predictors

Balance the data

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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