**Multivariate Regression**

Steps:

1. Launch SAS Enterprise Miner

Graphical user interface, text, website

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1. Create or Open a Project.

Graphical user interface, application, Word

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1. Create a Diagram.

A computer screen capture

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1. From Sample, drag File import to the Diagram.
   1. Under Train > Import File ***Boston.csv***

A screenshot of a computer

Description automatically generated with medium confidence

* 1. Under Train > Variables, select input features by dropping 'VAR 1', 'chas', 'rad'
  2. Under Train > Variables, set 'medv' is the target variable.

Table

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1. From Sample, drag Data Partition in the diagram.
   1. Partition dataset as 50% training, 40% validation, and 10% test.

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1. From Model, drag Regression in the diagram.
   1. Under Class Target, set Regression Type as “Linear Regression”
   2. Under Model Option, set Input Coding as “GLM”

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* 1. Under Model Selection, set Selection mode as “Backward”

Table

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* 1. Run Regression Node
  2. Once run completed successfully, check for the result.

A screenshot of a computer

Description automatically generated with medium confidence

1. Analyze result for Backward selection
   1. Check View > Model > Estimate Selection Plot

Graphical user interface, application

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Graphical user interface, application

Description automatically generated

* 1. Analyse the rest of the result

Graphical user interface, application

Description automatically generated

1. Selecting other model
   1. Under Model Selection, set Selection mode as “Forward”

Table

Description automatically generated

* 1. Run Regression Node
  2. Once run completed successfully, check for the result.

A screenshot of a computer

Description automatically generated with medium confidence

1. Analyze result for Forward selection
   1. Check View > Model > Estimate Selection Plot

Graphical user interface, application

Description automatically generated

Graphical user interface, application

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* 1. Analyze the rest of the result

Graphical user interface

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1. Selecting other model
   1. Under Model Selection, set Selection mode as “Stepwise”

Table

Description automatically generated

* 1. Run Regression Node
  2. Once run completed successfully, check for the result.

A screenshot of a computer

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1. Analyze result for Stepwise selection
   1. Check View > Model > Estimate Selection Plot

Graphical user interface, application

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* 1. Analyze the rest of the result

Graphical user interface

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