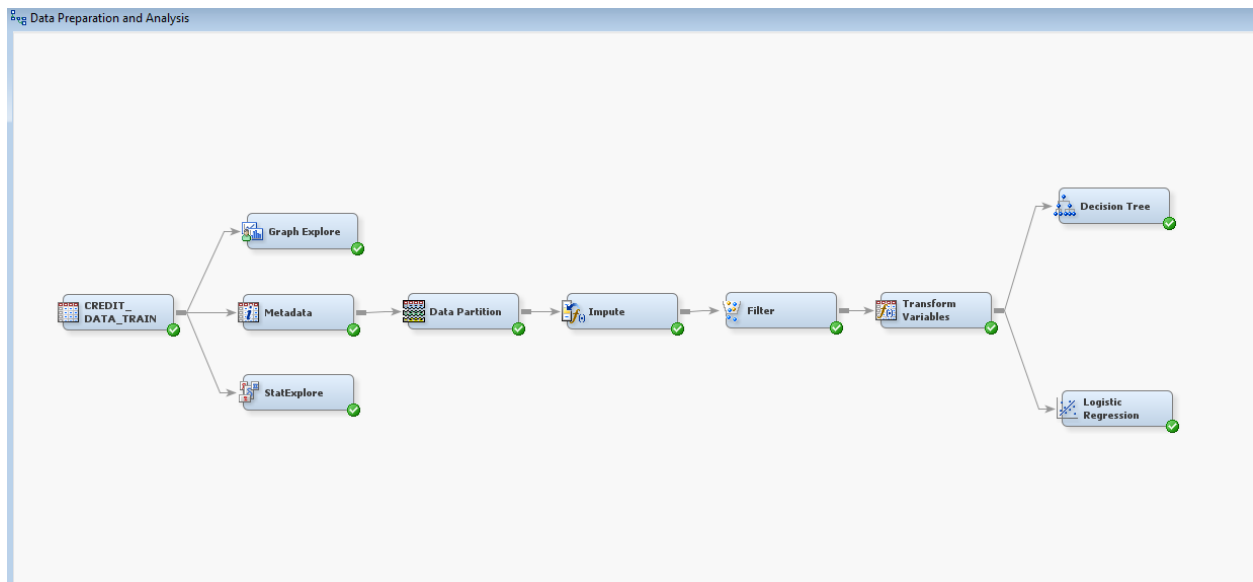


**Figure 1: Process Flow Diagram**



**Figure 2: Data Partition Results**

24

25

26

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36

37

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39

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41

42

43

44

45

46

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58

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60

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66

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71

72

73

74

Partition Summary

Type

Data Set

Number of  
Observations

DATA

EMWS2.Ids\_DATA

150000

TRAIN

EMWS2.Part\_TRAIN

89998

VALIDATE

EMWS2.Part\_VALIDATE

60002

\*-----\*

\* Score Output

\*-----\*

\*-----\*

\* Report Output

\*-----\*

Summary Statistics for Class Targets

Data=DATA

Variable

Numeric  
Value

Formatted  
Value

Frequency  
Count

Percent

Label

SeriousDlqin2yrs

0

0

139974

93.316

SeriousDlqin2yrs

SeriousDlqin2yrs

1

1

10026

6.684

SeriousDlqin2yrs

Data=TRAIN

Variable

Numeric  
Value

Formatted  
Value

Frequency  
Count

Percent

Label

SeriousDlqin2yrs

0

0

83983

93.3165

SeriousDlqin2yrs

SeriousDlqin2yrs

1

1

6015

6.6835

SeriousDlqin2yrs

Data=VALIDATE

Variable

Numeric  
Value

Formatted  
Value

Frequency  
Count

Percent

Label

SeriousDlqin2yrs

0

0

55991

93.3152

SeriousDlqin2yrs

SeriousDlqin2yrs

1

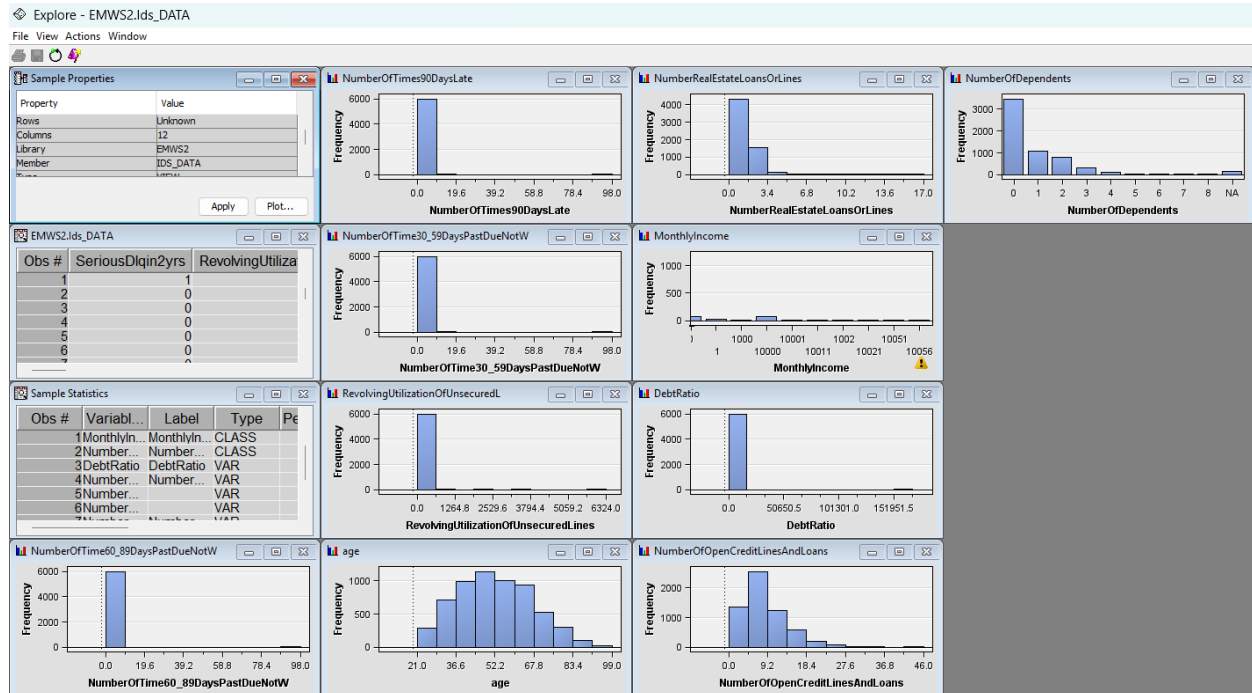
1

4011

6.6848

SeriousDlqin2yrs

**Figure 3: Histograms of Input Variables**



**Figure 4: User-specified Filter Results**

Results - Node: Filter Diagram: Data Preparation and Analysis				
File Edit View Window				
Output				
45	Number Of Observations			
46				
47	Data			
48	Role	Filtered	Excluded	DATA
49				
50	TRAIN	85259	4739	89998
51	VALIDATE	56897	3105	60002
52				
53				
54				
55	Statistics for Original and FILTERED Data			
56	(maximum 500 observations printed)			
57				
58	Data Role=TRAIN Variable=NumberOfOpenCreditLinesAndLoans			
59				
60	Statistics	Original	Filtered	
61				
62	Non Missing	89998.00	85259.00	
63	Missing	0.00	0.00	
64	Minimum	0.00	0.00	
65	Maximum	56.00	18.00	
66	Mean	8.46	7.82	
67	Standard Deviation	5.14	4.13	
68	Skewness	1.18	0.40	
69	Kurtosis	2.75	-0.47	
70				
71				
72	Data Role=TRAIN Variable=NumberOfTime30_59DaysPastDueNotW			
73				
74	Statistics	Original	Filtered	
75				
76	Non Missing	89998.00	85259.00	
77	Missing	0.00	0.00	
78	Minimum	0.00	0.00	
79	Maximum	98.00	5.00	
80	Mean	0.43	0.23	
81	Standard Deviation	4.26	0.63	
82	Skewness	22.24	3.65	
83	Kurtosis	505.62	15.95	
84				

**Figure 5: Transform Variables Formulas Window**

Variables - Trans

(none) ☐ not Equal to ☐ ...

Columns: ☐ Label ☐ Mining ☐ Basic ☐ Statistics

Name	Method	Number of Bins	Role	Level
A	Default	4	Rejected	Interval
DebtRatio	Default	4	Input	Interval
MonthlyIncome	Default	4	Rejected	Nominal
NumberOfDependents	Default	4	Rejected	Nominal
NumberOfOpenCreditLinesAndLoans	Default	4	Input	Interval
NumberOfTime30_59DaysPastDueNotW	Default	4	Input	Interval
NumberOfTime60_89DaysPastDueNotW	Default	4	Input	Interval
NumberOfTimes90DaysLate	Default	4	Input	Interval
NumberRealEstateLoansOrLines	Default	4	Input	Interval
RevolvingUtilizationOfUnsecuredL	Default	4	Input	Interval
SeriousDlqin2yrs	Default	4	Target	Binary
age	Default	4	Input	Interval

**Figure 6: Logistic Regression Fit Statistics**

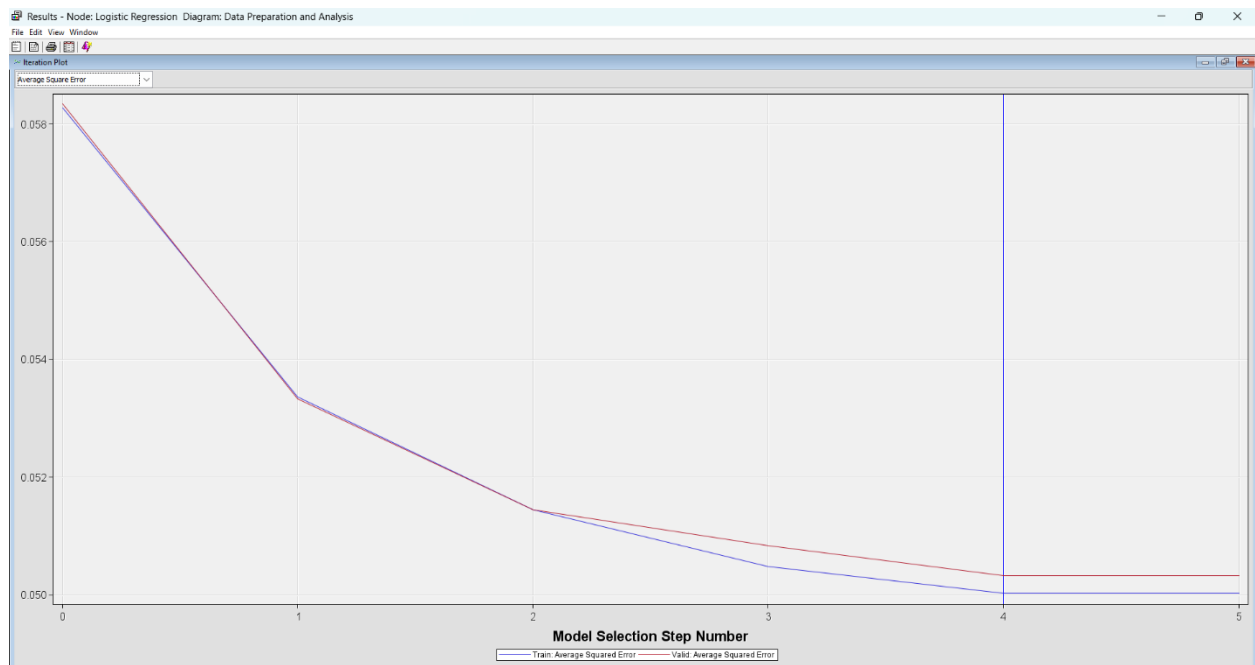
Results - Node: Regression Diagram: Data Preparation and Analysis

File Edit View Window

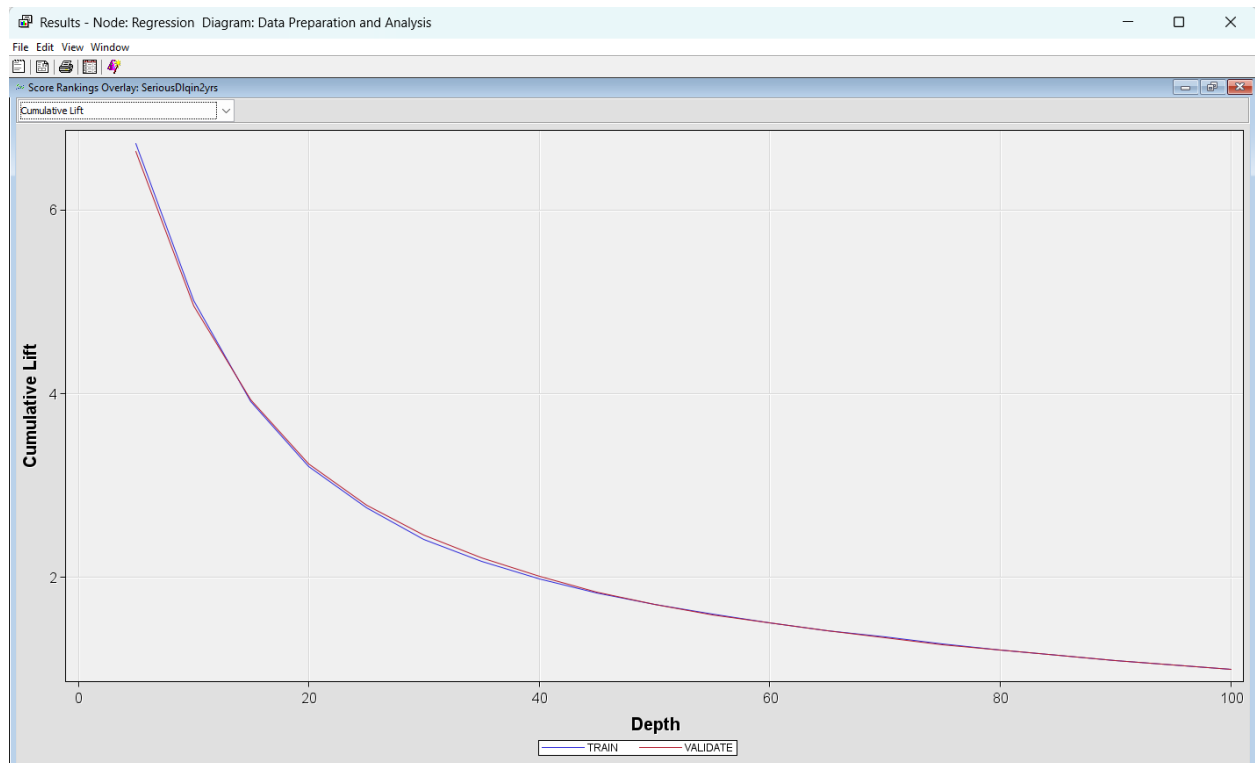
Fit Statistics

Target	Target Label	Fit Statistics	Statistics Label	Train	Validation	Test
SeriousDlqin2yrs	SeriousDlqin2yrs	AIC	Akaike's Information Criterion	32404.76		
SeriousDlqin2yrs	SeriousDlqin2yrs	ASE	Average Squared Error	0.050031		0.050324
SeriousDlqin2yrs	SeriousDlqin2yrs	AVERR	Average Error Function	0.189979		0.190706
SeriousDlqin2yrs	SeriousDlqin2yrs	DFE	Degrees of Freedom for Error	85254		
SeriousDlqin2yrs	SeriousDlqin2yrs	DFM	Model Degrees of Freedom	5		
SeriousDlqin2yrs	SeriousDlqin2yrs	DFT	Total Degrees of Freedom	85259		
SeriousDlqin2yrs	SeriousDlqin2yrs	DIV	Divisor for ASE	170518		113794
SeriousDlqin2yrs	SeriousDlqin2yrs	ERR	Error Function	32394.76		21701.25
SeriousDlqin2yrs	SeriousDlqin2yrs	FPE	Final Prediction Error	0.050037		
SeriousDlqin2yrs	SeriousDlqin2yrs	MAX	Maximum Absolute Error	0.991108		0.99112
SeriousDlqin2yrs	SeriousDlqin2yrs	MSE	Mean Square Error	0.050034		0.050324
SeriousDlqin2yrs	SeriousDlqin2yrs	NOBS	Sum of Frequencies	85259		56897
SeriousDlqin2yrs	SeriousDlqin2yrs	NW	Number of Estimate Weights	5		
SeriousDlqin2yrs	SeriousDlqin2yrs	RASE	Root Average Sum of Squares	0.223676		0.22433
SeriousDlqin2yrs	SeriousDlqin2yrs	RFPE	Root Final Prediction Error	0.223689		
SeriousDlqin2yrs	SeriousDlqin2yrs	RMSE	Root Mean Squared Error	0.223682		0.22433
SeriousDlqin2yrs	SeriousDlqin2yrs	SBC	Schwarz's Bayesian Criterion	32451.53		
SeriousDlqin2yrs	SeriousDlqin2yrs	SSE	Sum of Squared Errors	8531.146		5726.572
SeriousDlqin2yrs	SeriousDlqin2yrs	SUMW	Sum of Case Weights Time...	170518		113794
SeriousDlqin2yrs	SeriousDlqin2yrs	MISC	Misclassification Rate	0.060404		0.06053

**Figure 7: Logistic Regression Iteration Plot**



**Figure 8: Logistic Regression Cumulative Lift**



**Figure 9: Decision Tree Variable Importance Table**

Results - Node: Decision Tree Diagram: Data Preparation and Analysis

File Edit View Window

Variable Importance

Variable Name	Label	Number of Splitting Rules	Importance	Validation Importance	Ratio of Validation to Training Importance
NumberOfTimes90DaysLate	NumberOfTimes90DaysLate	3	1.0000	1.0000	1.0000
RevolvingUtilizationOfUnsecuredL...	RevolvingUtilizationOfUnsecuredLines	11	0.6308	0.6270	0.9940
NumberOfTime60 89DaysPastDueN...		5	0.4828	0.4625	0.9580
NumberOfTime30 59DaysPastDueN...		9	0.4272	0.4492	1.0516
DebtRatio	DebtRatio	4	0.1217	0.0869	0.7138
age	age	1	0.0901	0.0861	0.9556
NumberOfOpenCreditLinesAndLoans	NumberOfOpenCreditLinesAndLoans	2	0.0583	0.0154	0.2641
NumberRealEstateLoansOrLines	NumberRealEstateLoansOrLines	1	0.0470	0.0591	1.2575

**Figure 10: Decision Tree Fit Statistics**

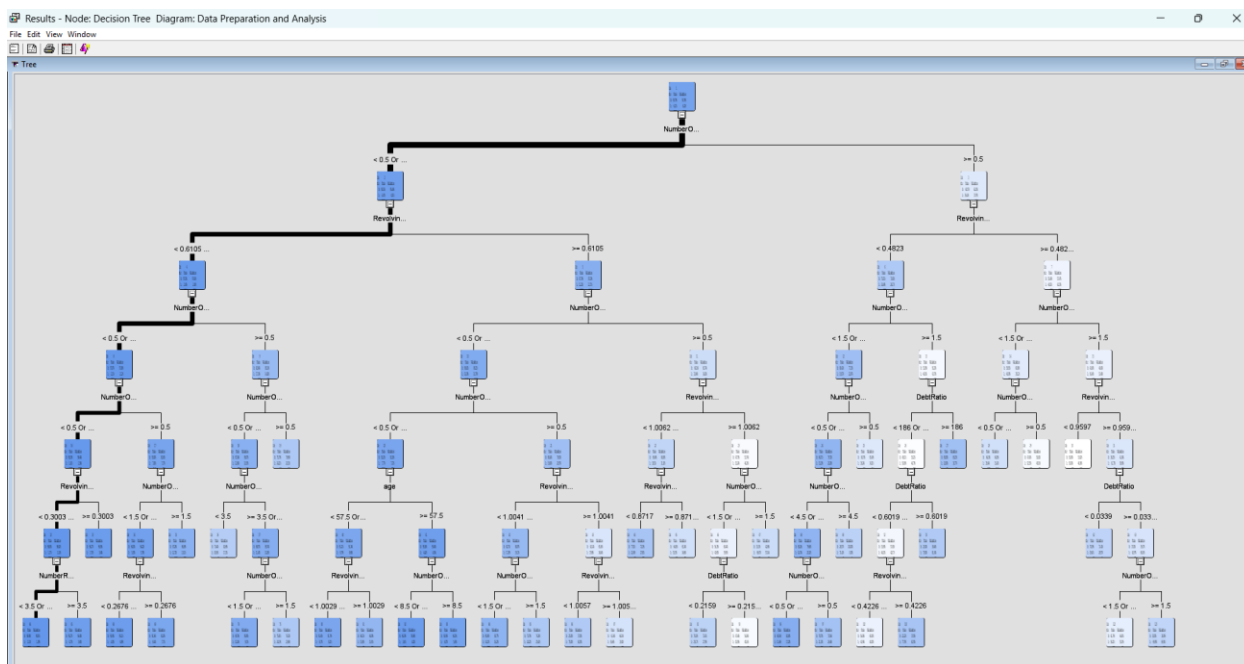
Results - Node: Decision Tree Diagram: Data Preparation and Analysis

File Edit View Window

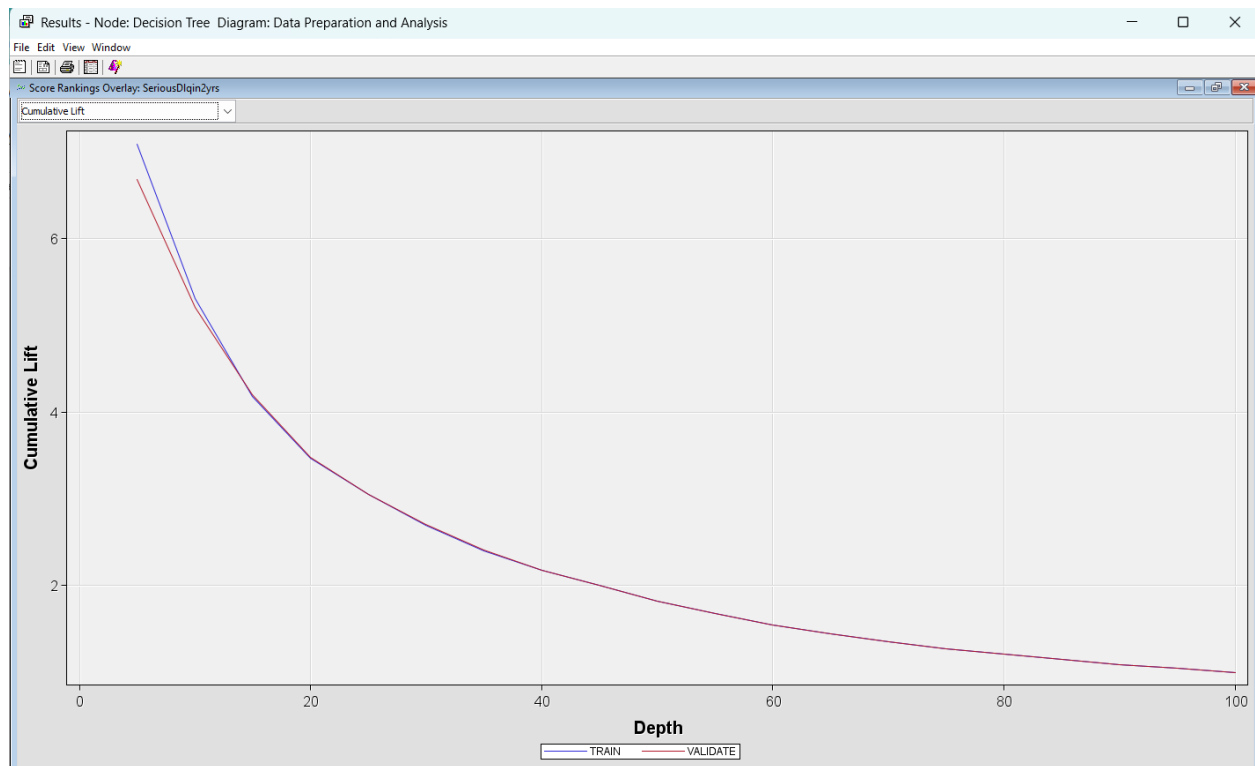
Fit Statistics

Target	Target Label	Fit Statistics	Statistics Label	Train	Validation
SeriousDlqin2yrs	SeriousDlqin2yrs	NOBS	Sum of Frequencies	85259	56897
SeriousDlqin2yrs	SeriousDlqin2yrs	MISC	Misclassification Rate	0.059736	0.061444
SeriousDlqin2yrs	SeriousDlqin2yrs	MAX	Maximum Absolute Error	0.988977	0.988977
SeriousDlqin2yrs	SeriousDlqin2yrs	SSE	Sum of Squared Errors	8071.066	5494.126
SeriousDlqin2yrs	SeriousDlqin2yrs	ASE	Average Squared Error	0.047333	0.048281
SeriousDlqin2yrs	SeriousDlqin2yrs	RASE	Root Average Squared Error	0.217561	0.21973
SeriousDlqin2yrs	SeriousDlqin2yrs	DIV	Divisor for ASE	170518	113794
SeriousDlqin2yrs	SeriousDlqin2yrs	DFT	Total Degrees of Freedom	85259	

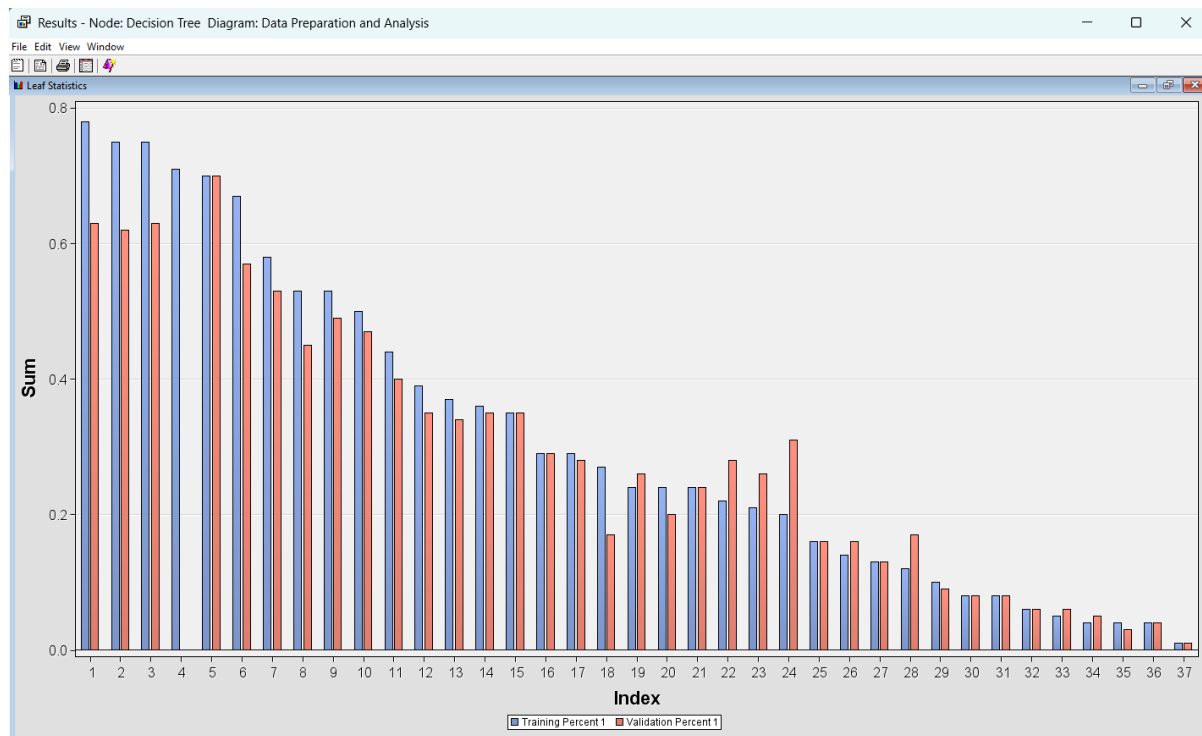
**Figure 11: Decision Tree Diagram**



**Figure 12: Decision Tree Cumulative Lift**



**Figure 13: Decision Tree Leaf Statistics**





**Figure 14: Decision Tree Subtree Assessment Plot**

