\*------------------------------------------------------------\*;

\* EM Version: 13.2;

\* SAS Release: 9.04.01M2P072314;

\* Host: SVKM-SAS;

\* Project Path: D:\0002\K;

\* Project Name: M31333929;

\* Diagram Id: EMWS1;

\* Diagram Name: M2;

\* Generated by: sasdemo;

\* Date: 28MAR2019:10:32:05;

\*------------------------------------------------------------\*;

\*------------------------------------------------------------\*;

\* Macro Variables;

\*------------------------------------------------------------\*;

%let EM\_PROJECT =;

%let EM\_PROJECTNAME =;

%let EM\_WSNAME =;

%let EM\_WSDESCRIPTION =M2;

%let EM\_SUMMARY =WORK.SUMMARY;

%let EM\_NUMTASKS =SINGLE;

%let EM\_EDITMODE =R;

%let EM\_DEBUGVAL =;

%let EM\_ACTION =run;

\*------------------------------------------------------------\*;

%macro em\_usedatatable;

%if ^%symexist(EM\_USEDATATABLE) %then %do;

%let EM\_USEDATATABLE = Y;

%end;

%if "&EM\_USEDATATABLE" ne "N" %then %do;

%global Ids2\_data Ids2\_newdata;

%global Ids\_data Ids\_newdata;

\*------------------------------------------------------------\*;

\* Data Tables;

\*------------------------------------------------------------\*;

%let Ids2\_data = SASUSER.LOANTEST2;

%let Ids2\_newdata =;

%let Ids\_data = SASUSER.LOANS2;

%let Ids\_newdata =;

\*------------------------------------------------------------\*;

%end;

%global Ids2\_source;

%if "&Ids2\_newdata" ne "" %then %do;

%let Ids2\_source = USERTABLE;

%end;

%else %do;

%let Ids2\_source = DATASOURCE;

%end;

%global Ids\_source;

%if "&Ids\_newdata" ne "" %then %do;

%let Ids\_source = USERTABLE;

%end;

%else %do;

%let Ids\_source = DATASOURCE;

%end;

%mend em\_usedatatable;

%em\_usedatatable;

\*------------------------------------------------------------\*;

\* Create workspace data set;

\*------------------------------------------------------------\*;

data workspace;

length property $64 value $200;

property= 'PROJECTLOCATION';

value= "&EM\_PROJECT";

output;

property= 'PROJECTNAME';

value= "&EM\_PROJECTNAME";

output;

property= 'WORKSPACENAME';

value= "&EM\_WSNAME";

output;

property= 'WORKSPACEDESCRIPTION';

value= "&EM\_WSDESCRIPTION";

output;

property= 'SUMMARYDATASET';

value= "&EM\_SUMMARY";

output;

property= 'NUMTASKS';

value= "&EM\_NUMTASKS";

output;

property= 'EDITMODE';

value= "&EM\_EDITMODE";

output;

property= 'DEBUG';

value= "&EM\_DEBUGVAL";

output;

run;

\*------------------------------------------------------------\*;

\* Create nodes data set;

\*------------------------------------------------------------\*;

data nodes;

length id $12 component $32 description $64 X 8 Y 8 diagramID $32 parentID $32;

id= "Trans";

component="Transform";

description= "Transform Variables";

diagramID="\_ROOT\_";

parentID="";

X=727;

Y=292;

output;

id= "Stat";

component="StatExplore";

description= "StatExplore";

diagramID="\_ROOT\_";

parentID="";

X=248;

Y=132;

output;

id= "Reg";

component="Regression";

description= "Regression";

diagramID="\_ROOT\_";

parentID="";

X=896;

Y=292;

output;

id= "Part";

component="Partition";

description= "Data Partition";

diagramID="\_ROOT\_";

parentID="";

X=407;

Y=129;

output;

id= "Impt";

component="Impute";

description= "Impute";

diagramID="\_ROOT\_";

parentID="";

X=565;

Y=287;

output;

id= "Ids2";

component="DataSource";

description= "LOANTEST2";

diagramID="\_ROOT\_";

parentID="";

X=104;

Y=207;

output;

id= "Ids";

component="DataSource";

description= "LOANS2";

diagramID="\_ROOT\_";

parentID="";

X=102;

Y=133;

output;

id= "EMCODE";

component="SASCode";

description= "SAS Code";

diagramID="\_ROOT\_";

parentID="";

X=1016;

Y=601;

output;

id= "AutoNeural";

component="AutoNeural";

description= "AutoNeural";

diagramID="\_ROOT\_";

parentID="";

X=1072;

Y=424;

output;

run;

\*------------------------------------------------------------\*;

\* DataSource Properties;

\*------------------------------------------------------------\*;

data WORK.loans\_P;

length Property $ 32

Value $ 200

;

Property="Name";

Value="LOANS2";

output;

Property="CreateDate";

Value="1869380563.1";

output;

Property="ModifyDate";

Value="1869380563.1";

output;

Property="CreatedBy";

Value="sasserver";

output;

Property="ModifiedBy";

Value="sasserver";

output;

Property="SampleSizeType";

Value="";

output;

Property="SampleSize";

Value="";

output;

;

run;

\*------------------------------------------------------------\*;

\* DataSource Properties;

\*------------------------------------------------------------\*;

data WORK.loantest\_P;

length Property $ 32

Value $ 200

;

Property="Name";

Value="LOANTEST2";

output;

Property="CreateDate";

Value="1869387041.6";

output;

Property="ModifyDate";

Value="1869387041.6";

output;

Property="CreatedBy";

Value="sasserver";

output;

Property="ModifiedBy";

Value="sasserver";

output;

Property="SampleSizeType";

Value="";

output;

Property="SampleSize";

Value="";

output;

;

run;

\*------------------------------------------------------------\*;

\* INTERACTION Data Set for Trans;

\*------------------------------------------------------------\*;

\*------------------------------------------------------------\*;

\* FORMULA Data Set for Trans;

\*------------------------------------------------------------\*;

\*------------------------------------------------------------\*;

\* EMNOTES File for Trans;

\*------------------------------------------------------------\*;

data \_null\_;

if symget('sysscp')=:'WIN' then dsep='\';

else if symget('sysscp')=:'DNT' then dsep='\';

else dsep = '/';

filepath = pathname('work')!!dsep!!"Trans\_EMNOTES.txt";

call symput('DSPATH', filepath);

run;

data \_null\_;

filename dspath "&dspath" encoding="utf-8" NOBOM;

file dspath;

run;

\*------------------------------------------------------------\*;

\* CROSSTAB Data Set for Stat;

\*------------------------------------------------------------\*;

\*------------------------------------------------------------\*;

\* EMNOTES File for Stat;

\*------------------------------------------------------------\*;

data \_null\_;

if symget('sysscp')=:'WIN' then dsep='\';

else if symget('sysscp')=:'DNT' then dsep='\';

else dsep = '/';

filepath = pathname('work')!!dsep!!"Stat\_EMNOTES.txt";

call symput('DSPATH', filepath);

run;

data \_null\_;

filename dspath "&dspath" encoding="utf-8" NOBOM;

file dspath;

run;

\*------------------------------------------------------------\*;

\* EMNOTES File for Reg;

\*------------------------------------------------------------\*;

data \_null\_;

if symget('sysscp')=:'WIN' then dsep='\';

else if symget('sysscp')=:'DNT' then dsep='\';

else dsep = '/';

filepath = pathname('work')!!dsep!!"Reg\_EMNOTES.txt";

call symput('DSPATH', filepath);

run;

data \_null\_;

filename dspath "&dspath" encoding="utf-8" NOBOM;

file dspath;

run;

\*------------------------------------------------------------\*;

\* EMNOTES File for Part;

\*------------------------------------------------------------\*;

data \_null\_;

if symget('sysscp')=:'WIN' then dsep='\';

else if symget('sysscp')=:'DNT' then dsep='\';

else dsep = '/';

filepath = pathname('work')!!dsep!!"Part\_EMNOTES.txt";

call symput('DSPATH', filepath);

run;

data \_null\_;

filename dspath "&dspath" encoding="utf-8" NOBOM;

file dspath;

run;

\*------------------------------------------------------------\*;

\* EMNOTES File for Impt;

\*------------------------------------------------------------\*;

data \_null\_;

if symget('sysscp')=:'WIN' then dsep='\';

else if symget('sysscp')=:'DNT' then dsep='\';

else dsep = '/';

filepath = pathname('work')!!dsep!!"Impt\_EMNOTES.txt";

call symput('DSPATH', filepath);

run;

data \_null\_;

filename dspath "&dspath" encoding="utf-8" NOBOM;

file dspath;

run;

\*------------------------------------------------------------\*;

\* Variable Attributes for Ids2;

\*------------------------------------------------------------\*;

data WORK.Ids2\_VariableAttribute;

length Variable $64 AttributeName $32 AttributeValue $64;

Variable='credit\_policy';

AttributeName="LEVEL";

AttributeValue='BINARY';

Output;

Variable='not\_fully\_paid';

AttributeName="ROLE";

AttributeValue='TARGET';

Output;

Variable='not\_fully\_paid';

AttributeName="LEVEL";

AttributeValue='BINARY';

Output;

run;

\*------------------------------------------------------------\*;

\* EMNOTES File for Ids2;

\*------------------------------------------------------------\*;

data \_null\_;

if symget('sysscp')=:'WIN' then dsep='\';

else if symget('sysscp')=:'DNT' then dsep='\';

else dsep = '/';

filepath = pathname('work')!!dsep!!"Ids2\_EMNOTES.txt";

call symput('DSPATH', filepath);

run;

data \_null\_;

filename dspath "&dspath" encoding="utf-8" NOBOM;

file dspath;

run;

\*------------------------------------------------------------\*;

\* Variable Attributes for Ids;

\*------------------------------------------------------------\*;

data WORK.Ids\_VariableAttribute;

length Variable $64 AttributeName $32 AttributeValue $64;

Variable='credit\_policy';

AttributeName="LEVEL";

AttributeValue='BINARY';

Output;

Variable='not\_fully\_paid';

AttributeName="ROLE";

AttributeValue='TARGET';

Output;

Variable='not\_fully\_paid';

AttributeName="LEVEL";

AttributeValue='BINARY';

Output;

run;

\*------------------------------------------------------------\*;

\* Decmeta Data Set for Ids;

\*------------------------------------------------------------\*;

data WORK.Ids\_not\_fully\_paid\_DM;

length \_TYPE\_ $ 32

VARIABLE $ 32

LABEL $ 256

LEVEL $ 32

EVENT $ 32

ORDER $ 10

FORMAT $ 32

TYPE $ 1

COST $ 32

USE $ 1

;

label \_TYPE\_="Type"

VARIABLE="Variable"

LABEL="Label"

LEVEL="Measurement Level"

EVENT="Target Event"

ORDER="Order"

FORMAT="Format"

TYPE="Type"

COST="Cost"

USE="Use"

;

\_TYPE\_="MATRIX";

VARIABLE="";

LABEL="";

LEVEL="PROFIT";

EVENT="";

ORDER="";

FORMAT="";

TYPE="";

COST="";

USE="Y";

output;

\_TYPE\_="TARGET";

VARIABLE="not\_fully\_paid";

LABEL="not.fully.paid";

LEVEL="BINARY";

EVENT="1";

ORDER="";

FORMAT="BEST12.0";

TYPE="N";

COST="";

USE="";

output;

\_TYPE\_="DATAPRIOR";

VARIABLE="DATAPRIOR";

LABEL="Data Prior";

LEVEL="";

EVENT="";

ORDER="";

FORMAT="";

TYPE="N";

COST="";

USE="Y";

output;

\_TYPE\_="TRAINPRIOR";

VARIABLE="TRAINPRIOR";

LABEL="Training Prior";

LEVEL="";

EVENT="";

ORDER="";

FORMAT="";

TYPE="N";

COST="";

USE="N";

output;

\_TYPE\_="DECPRIOR";

VARIABLE="DECPRIOR";

LABEL="Decision Prior";

LEVEL="";

EVENT="";

ORDER="";

FORMAT="";

TYPE="N";

COST="";

USE="N";

output;

\_TYPE\_="PREDICTED";

VARIABLE="P\_not\_fully\_paid1";

LABEL="Predicted: not\_fully\_paid=1";

LEVEL="1";

EVENT="";

ORDER="";

FORMAT="";

TYPE="N";

COST="";

USE="";

output;

\_TYPE\_="RESIDUAL";

VARIABLE="R\_not\_fully\_paid1";

LABEL="Residual: not\_fully\_paid=1";

LEVEL="1";

EVENT="";

ORDER="";

FORMAT="";

TYPE="N";

COST="";

USE="";

output;

\_TYPE\_="PREDICTED";

VARIABLE="P\_not\_fully\_paid0";

LABEL="Predicted: not\_fully\_paid=0";

LEVEL="0";

EVENT="";

ORDER="";

FORMAT="";

TYPE="N";

COST="";

USE="";

output;

\_TYPE\_="RESIDUAL";

VARIABLE="R\_not\_fully\_paid0";

LABEL="Residual: not\_fully\_paid=0";

LEVEL="0";

EVENT="";

ORDER="";

FORMAT="";

TYPE="N";

COST="";

USE="";

output;

\_TYPE\_="FROM";

VARIABLE="F\_not\_fully\_paid";

LABEL="From: not\_fully\_paid";

LEVEL="";

EVENT="";

ORDER="";

FORMAT="";

TYPE="C";

COST="";

USE="";

output;

\_TYPE\_="INTO";

VARIABLE="I\_not\_fully\_paid";

LABEL="Into: not\_fully\_paid";

LEVEL="";

EVENT="";

ORDER="";

FORMAT="";

TYPE="C";

COST="";

USE="";

output;

\_TYPE\_="DECISION";

VARIABLE="DECISION1";

LABEL="1";

LEVEL="";

EVENT="";

ORDER="";

FORMAT="";

TYPE="N";

COST="";

USE="Y";

output;

\_TYPE\_="DECISION";

VARIABLE="DECISION2";

LABEL="0";

LEVEL="";

EVENT="";

ORDER="";

FORMAT="";

TYPE="N";

COST="";

USE="Y";

output;

\_TYPE\_="MODELDECISION";

VARIABLE="D\_not\_fully\_paid";

LABEL="Decision: not\_fully\_paid";

LEVEL="";

EVENT="";

ORDER="";

FORMAT="";

TYPE="N";

COST="";

USE="Y";

output;

\_TYPE\_="EXPECTEDPROFIT";

VARIABLE="EP\_NOT\_FULLY\_PAID";

LABEL="Expected Profit: not\_fully\_paid";

LEVEL="";

EVENT="";

ORDER="";

FORMAT="";

TYPE="N";

COST="";

USE="Y";

output;

\_TYPE\_="COMPUTEDPROFIT";

VARIABLE="CP\_NOT\_FULLY\_PAID";

LABEL="Computed Profit: not\_fully\_paid";

LEVEL="";

EVENT="";

ORDER="";

FORMAT="";

TYPE="N";

COST="";

USE="Y";

output;

\_TYPE\_="BESTPROFIT";

VARIABLE="BP\_NOT\_FULLY\_PAID";

LABEL="Best Profit: not\_fully\_paid";

LEVEL="";

EVENT="";

ORDER="";

FORMAT="";

TYPE="N";

COST="";

USE="Y";

output;

;

run;

\*------------------------------------------------------------\*;

\* Decdata Data Set for Ids;

\*------------------------------------------------------------\*;

data WORK.Ids\_not\_fully\_paid\_DD;

length not\_fully\_paid $ 32

COUNT 8

DATAPRIOR 8

TRAINPRIOR 8

DECPRIOR 8

DECISION1 8

DECISION2 8

;

label COUNT="Level Counts"

DATAPRIOR="Data Proportions"

TRAINPRIOR="Training Proportions"

DECPRIOR="Decision Priors"

DECISION1="1"

DECISION2="0"

;

format COUNT 10.

;

not\_fully\_paid="1";

COUNT=905;

DATAPRIOR=0.1579131041703;

TRAINPRIOR=0.1579131041703;

DECPRIOR=0.1579;

DECISION1=1;

DECISION2=0;

output;

not\_fully\_paid="0";

COUNT=4826;

DATAPRIOR=0.84208689582969;

TRAINPRIOR=0.84208689582969;

DECPRIOR=0.8421;

DECISION1=0;

DECISION2=1;

output;

;

run;

\*------------------------------------------------------------\*;

\* EMNOTES File for Ids;

\*------------------------------------------------------------\*;

data \_null\_;

if symget('sysscp')=:'WIN' then dsep='\';

else if symget('sysscp')=:'DNT' then dsep='\';

else dsep = '/';

filepath = pathname('work')!!dsep!!"Ids\_EMNOTES.txt";

call symput('DSPATH', filepath);

run;

data \_null\_;

filename dspath "&dspath" encoding="utf-8" NOBOM;

file dspath;

run;

\*------------------------------------------------------------\*;

\* USERTRAINCODE File for EMCODE;

\*------------------------------------------------------------\*;

data \_null\_;

if symget('sysscp')=:'WIN' then dsep='\';

else if symget('sysscp')=:'DNT' then dsep='\';

else dsep = '/';

filepath = pathname('work')!!dsep!!"EMCODE\_USERTRAINCODE.sas";

call symput('DSPATH', filepath);

run;

data \_null\_;

filename dspath "&dspath";

file dspath;

run;

\*------------------------------------------------------------\*;

\* EMNOTES File for EMCODE;

\*------------------------------------------------------------\*;

data \_null\_;

if symget('sysscp')=:'WIN' then dsep='\';

else if symget('sysscp')=:'DNT' then dsep='\';

else dsep = '/';

filepath = pathname('work')!!dsep!!"EMCODE\_EMNOTES.txt";

call symput('DSPATH', filepath);

run;

data \_null\_;

filename dspath "&dspath" encoding="utf-8" NOBOM;

file dspath;

run;

\*------------------------------------------------------------\*;

\* EMNOTES File for AutoNeural;

\*------------------------------------------------------------\*;

data \_null\_;

if symget('sysscp')=:'WIN' then dsep='\';

else if symget('sysscp')=:'DNT' then dsep='\';

else dsep = '/';

filepath = pathname('work')!!dsep!!"AutoNeural\_EMNOTES.txt";

call symput('DSPATH', filepath);

run;

data \_null\_;

filename dspath "&dspath" encoding="utf-8" NOBOM;

file dspath;

run;

\*------------------------------------------------------------\*;

\* Create node properties data set;

\*------------------------------------------------------------\*;

data nodeprops;

length id $12 property $64 value $400;

id= "Trans";

property="DefaultMethod";

value= "MAX\_NORM";

output;

id= "Trans";

property="DefaultTargetMethod";

value= "NONE";

output;

id= "Trans";

property="DefaultClassMethod";

value= "NONE";

output;

id= "Trans";

property="DefaultClassTargetMethod";

value= "NONE";

output;

id= "Trans";

property="Offset";

value= "1";

output;

id= "Trans";

property="MinOffset";

value= "Y";

output;

id= "Trans";

property="HideVariable";

value= "Y";

output;

id= "Trans";

property="RejectVariable";

value= "Y";

output;

id= "Trans";

property="GroupCutoff";

value= "0.1";

output;

id= "Trans";

property="GroupMissing";

value= "N";

output;

id= "Trans";

property="EmRandomSeed";

value= "12345";

output;

id= "Trans";

property="EmSampleSize";

value= "DEFAULT";

output;

id= "Trans";

property="EmSampleMethod";

value= "FIRSTN";

output;

id= "Trans";

property="MissingValue";

value= "USEINSEARCH";

output;

id= "Trans";

property="SummaryVariables";

value= "TRANSFORMED";

output;

id= "Trans";

property="SummaryStatistics";

value= "Y";

output;

id= "Trans";

property="UseMetaTransform";

value= "Y";

output;

id= "Trans";

property="MissingAsLevel";

value= "N";

output;

id= "Trans";

property="NumberofBins";

value= "VARIABLES";

output;

id= "Trans";

property="MaxOptimalBins";

value= "4";

output;

id= "Trans";

property="ForceRun";

value= "N";

output;

id= "Trans";

property="RunAction";

value= "Train";

output;

id= "Trans";

property="Component";

value= "Transform";

output;

id= "Trans";

property="EM\_FILE\_EMNOTES";

value= "Trans\_EMNOTES.txt";

output;

id= "Stat";

property="BySegment";

value= "N";

output;

id= "Stat";

property="Correlation";

value= "Y";

output;

id= "Stat";

property="Spearman";

value= "N";

output;

id= "Stat";

property="Pearson";

value= "Y";

output;

id= "Stat";

property="ChiSquare";

value= "Y";

output;

id= "Stat";

property="ChiSquareInterval";

value= "N";

output;

id= "Stat";

property="ChiSquareIntervalNBins";

value= "5";

output;

id= "Stat";

property="MaximumVars";

value= "1000";

output;

id= "Stat";

property="HideVariable";

value= "Y";

output;

id= "Stat";

property="DropRejected";

value= "Y";

output;

id= "Stat";

property="UseValidate";

value= "N";

output;

id= "Stat";

property="UseTest";

value= "N";

output;

id= "Stat";

property="UseScore";

value= "N";

output;

id= "Stat";

property="NObs";

value= "100000";

output;

id= "Stat";

property="IntervalDistribution";

value= "Y";

output;

id= "Stat";

property="ClassDistribution";

value= "Y";

output;

id= "Stat";

property="LevelSummary";

value= "Y";

output;

id= "Stat";

property="ForceRun";

value= "N";

output;

id= "Stat";

property="RunAction";

value= "Train";

output;

id= "Stat";

property="Component";

value= "StatExplore";

output;

id= "Stat";

property="EM\_FILE\_EMNOTES";

value= "Stat\_EMNOTES.txt";

output;

id= "Reg";

property="MainEffect";

value= "Y";

output;

id= "Reg";

property="TwoFactor";

value= "N";

output;

id= "Reg";

property="Polynomial";

value= "N";

output;

id= "Reg";

property="PolynomialDegree";

value= "2";

output;

id= "Reg";

property="Terms";

value= "N";

output;

id= "Reg";

property="Error";

value= "LOGISTIC";

output;

id= "Reg";

property="LinkFunction";

value= "LOGIT";

output;

id= "Reg";

property="SuppressIntercept";

value= "N";

output;

id= "Reg";

property="InputCoding";

value= "DEVIATION";

output;

id= "Reg";

property="MinResourceUse";

value= "N";

output;

id= "Reg";

property="ModelSelection";

value= "STEPWISE";

output;

id= "Reg";

property="SelectionCriterion";

value= "VMISC";

output;

id= "Reg";

property="SelectionDefault";

value= "Y";

output;

id= "Reg";

property="Sequential";

value= "N";

output;

id= "Reg";

property="SlEntry";

value= "0.05";

output;

id= "Reg";

property="SlStay";

value= "0.05";

output;

id= "Reg";

property="Start";

value= "0";

output;

id= "Reg";

property="Stop";

value= "0";

output;

id= "Reg";

property="Force";

value= "0";

output;

id= "Reg";

property="Hierarchy";

value= "CLASS";

output;

id= "Reg";

property="Rule";

value= "NONE";

output;

id= "Reg";

property="MaxStep";

value= ".";

output;

id= "Reg";

property="StepOutput";

value= "N";

output;

id= "Reg";

property="OptimizationTechnique";

value= "DEFAULT";

output;

id= "Reg";

property="ModelDefaults";

value= "Y";

output;

id= "Reg";

property="MaxIterations";

value= ".";

output;

id= "Reg";

property="MaxFunctionCalls";

value= ".";

output;

id= "Reg";

property="MaxCPUTime";

value= "1 HOUR";

output;

id= "Reg";

property="ConvDefaults";

value= "Y";

output;

id= "Reg";

property="AbsConvValue";

value= "-1.34078E154";

output;

id= "Reg";

property="AbsFValue";

value= "0";

output;

id= "Reg";

property="AbsFTime";

value= "1";

output;

id= "Reg";

property="AbsGValue";

value= "0.00001";

output;

id= "Reg";

property="AbsGTime";

value= "1";

output;

id= "Reg";

property="AbsXValue";

value= "1E-8";

output;

id= "Reg";

property="AbsXTime";

value= "1";

output;

id= "Reg";

property="FConvValue";

value= "0";

output;

id= "Reg";

property="FConvTimes";

value= "1";

output;

id= "Reg";

property="GConvValue";

value= "1E-6";

output;

id= "Reg";

property="GConvTimes";

value= "1";

output;

id= "Reg";

property="ClParm";

value= "N";

output;

id= "Reg";

property="Covout";

value= "N";

output;

id= "Reg";

property="CovB";

value= "N";

output;

id= "Reg";

property="CorB";

value= "N";

output;

id= "Reg";

property="Simple";

value= "N";

output;

id= "Reg";

property="SuppressOutput";

value= "N";

output;

id= "Reg";

property="Details";

value= "N";

output;

id= "Reg";

property="PrintDesignMatrix";

value= "N";

output;

id= "Reg";

property="SASSPDS";

value= "N";

output;

id= "Reg";

property="Performance";

value= "N";

output;

id= "Reg";

property="ExcludedVariable";

value= "REJECT";

output;

id= "Reg";

property="ForceRun";

value= "N";

output;

id= "Reg";

property="RunAction";

value= "Train";

output;

id= "Reg";

property="Component";

value= "Regression";

output;

id= "Reg";

property="Interactions";

value= "";

output;

id= "Reg";

property="EM\_FILE\_EMNOTES";

value= "Reg\_EMNOTES.txt";

output;

id= "Part";

property="Method";

value= "DEFAULT";

output;

id= "Part";

property="TrainPct";

value= "70";

output;

id= "Part";

property="ValidatePct";

value= "30";

output;

id= "Part";

property="TestPct";

value= "30";

output;

id= "Part";

property="RandomSeed";

value= "12345";

output;

id= "Part";

property="OutputType";

value= "DATA";

output;

id= "Part";

property="IntervalDistribution";

value= "Y";

output;

id= "Part";

property="ClassDistribution";

value= "Y";

output;

id= "Part";

property="ForceRun";

value= "N";

output;

id= "Part";

property="RunAction";

value= "Train";

output;

id= "Part";

property="Component";

value= "Partition";

output;

id= "Part";

property="EM\_FILE\_EMNOTES";

value= "Part\_EMNOTES.txt";

output;

id= "Impt";

property="MethodInterval";

value= "MEAN";

output;

id= "Impt";

property="MethodClass";

value= "COUNT";

output;

id= "Impt";

property="MethodTargetInterval";

value= "NONE";

output;

id= "Impt";

property="MethodTargetClass";

value= "NONE";

output;

id= "Impt";

property="ABWTuning";

value= "9";

output;

id= "Impt";

property="AHUBERTuning";

value= "1.5";

output;

id= "Impt";

property="AWAVETuning";

value= "6.2831853072";

output;

id= "Impt";

property="SpacingProportion";

value= "90";

output;

id= "Impt";

property="DefaultChar";

value= "";

output;

id= "Impt";

property="DefaultNum";

value= ".";

output;

id= "Impt";

property="RandomSeed";

value= "12345";

output;

id= "Impt";

property="Normalize";

value= "Y";

output;

id= "Impt";

property="ImputeNoMissing";

value= "N";

output;

id= "Impt";

property="MaxPctMissing";

value= "50";

output;

id= "Impt";

property="ValidateTestMissing";

value= "N";

output;

id= "Impt";

property="DistributionMissing";

value= "N";

output;

id= "Impt";

property="LeafSize";

value= "5";

output;

id= "Impt";

property="Maxbranch";

value= "2";

output;

id= "Impt";

property="Maxdepth";

value= "6";

output;

id= "Impt";

property="MinCatSize";

value= "5";

output;

id= "Impt";

property="Nrules";

value= "5";

output;

id= "Impt";

property="Nsurrs";

value= "2";

output;

id= "Impt";

property="Splitsize";

value= ".";

output;

id= "Impt";

property="Indicator";

value= "NONE";

output;

id= "Impt";

property="IndicatorRole";

value= "REJECTED";

output;

id= "Impt";

property="ReplaceVariable";

value= "N";

output;

id= "Impt";

property="HideVariable";

value= "Y";

output;

id= "Impt";

property="IndicatorSource";

value= "IMPUTED";

output;

id= "Impt";

property="ForceRun";

value= "N";

output;

id= "Impt";

property="RunAction";

value= "Train";

output;

id= "Impt";

property="Component";

value= "Impute";

output;

id= "Impt";

property="EM\_FILE\_EMNOTES";

value= "Impt\_EMNOTES.txt";

output;

id= "Ids2";

property="DataSource";

value= "loantest";

output;

id= "Ids2";

property="Scope";

value= "LOCAL";

output;

id= "Ids2";

property="Role";

value= "SCORE";

output;

%let Ids2\_lib = %scan(&Ids2\_data, 1, .);

id= "Ids2";

property="Library";

value= "&Ids2\_lib";

output;

%let Ids2\_member = %scan(&Ids2\_data, 2, .);

id= "Ids2";

property="Table";

value= "&Ids2\_member";

output;

id= "Ids2";

property="NCols";

value= "14";

output;

id= "Ids2";

property="NObs";

value= "3797";

output;

id= "Ids2";

property="NBytes";

value= "525312";

output;

id= "Ids2";

property="Segment";

value= "";

output;

id= "Ids2";

property="DataSourceRole";

value= "SCORE";

output;

id= "Ids2";

property="OutputType";

value= "VIEW";

output;

id= "Ids2";

property="ForceRun";

value= "N";

output;

id= "Ids2";

property="ComputeStatistics";

value= "N";

output;

id= "Ids2";

property="DataSelection";

value= "&Ids2\_source";

output;

id= "Ids2";

property="NewTable";

value= "&Ids2\_newdata";

output;

id= "Ids2";

property="MetaAdvisor";

value= "BASIC";

output;

id= "Ids2";

property="ApplyIntervalLevelLowerLimit";

value= "Y";

output;

id= "Ids2";

property="IntervalLowerLimit";

value= "20";

output;

id= "Ids2";

property="ApplyMaxPercentMissing";

value= "Y";

output;

id= "Ids2";

property="MaxPercentMissing";

value= "50";

output;

id= "Ids2";

property="ApplyMaxClassLevels";

value= "Y";

output;

id= "Ids2";

property="MaxClassLevels";

value= "20";

output;

id= "Ids2";

property="IdentifyEmptyColumns";

value= "Y";

output;

id= "Ids2";

property="VariableValidation";

value= "STRICT";

output;

id= "Ids2";

property="NewVariableRole";

value= "REJECT";

output;

id= "Ids2";

property="DropMapVariables";

value= "Y";

output;

id= "Ids2";

property="DsId";

value= "loantest";

output;

id= "Ids2";

property="DsSampleName";

value= "";

output;

id= "Ids2";

property="DsSampleSizeType";

value= "";

output;

id= "Ids2";

property="DsSampleSize";

value= "";

output;

id= "Ids2";

property="DsCreatedBy";

value= "sasserver";

output;

id= "Ids2";

property="DsCreateDate";

value= "1869387041.6";

output;

id= "Ids2";

property="DsModifiedBy";

value= "sasserver";

output;

id= "Ids2";

property="DsModifyDate";

value= "1869387041.6";

output;

id= "Ids2";

property="DsScope";

value= "LOCAL";

output;

id= "Ids2";

property="Sample";

value= "D";

output;

id= "Ids2";

property="SampleSizeType";

value= "PERCENT";

output;

id= "Ids2";

property="SampleSizePercent";

value= "20";

output;

id= "Ids2";

property="SampleSizeObs";

value= "10000";

output;

id= "Ids2";

property="DBPassThrough";

value= "Y";

output;

id= "Ids2";

property="RunAction";

value= "Train";

output;

id= "Ids2";

property="Component";

value= "DataSource";

output;

id= "Ids2";

property="Description";

value= "";

output;

id= "Ids2";

property="EM\_VARIABLEATTRIBUTES";

value= "WORK.Ids2\_VariableAttribute";

output;

id= "Ids2";

property="EM\_FILE\_EMNOTES";

value= "Ids2\_EMNOTES.txt";

output;

id= "Ids";

property="DataSource";

value= "loans";

output;

id= "Ids";

property="Scope";

value= "LOCAL";

output;

id= "Ids";

property="Role";

value= "RAW";

output;

%let Ids\_lib = %scan(&Ids\_data, 1, .);

id= "Ids";

property="Library";

value= "&Ids\_lib";

output;

%let Ids\_member = %scan(&Ids\_data, 2, .);

id= "Ids";

property="Table";

value= "&Ids\_member";

output;

id= "Ids";

property="NCols";

value= "14";

output;

id= "Ids";

property="NObs";

value= "5731";

output;

id= "Ids";

property="NBytes";

value= "787456";

output;

id= "Ids";

property="Segment";

value= "";

output;

id= "Ids";

property="DataSourceRole";

value= "RAW";

output;

id= "Ids";

property="OutputType";

value= "VIEW";

output;

id= "Ids";

property="ForceRun";

value= "N";

output;

id= "Ids";

property="ComputeStatistics";

value= "N";

output;

id= "Ids";

property="DataSelection";

value= "&Ids\_source";

output;

id= "Ids";

property="NewTable";

value= "&Ids\_newdata";

output;

id= "Ids";

property="MetaAdvisor";

value= "BASIC";

output;

id= "Ids";

property="ApplyIntervalLevelLowerLimit";

value= "Y";

output;

id= "Ids";

property="IntervalLowerLimit";

value= "20";

output;

id= "Ids";

property="ApplyMaxPercentMissing";

value= "Y";

output;

id= "Ids";

property="MaxPercentMissing";

value= "50";

output;

id= "Ids";

property="ApplyMaxClassLevels";

value= "Y";

output;

id= "Ids";

property="MaxClassLevels";

value= "20";

output;

id= "Ids";

property="IdentifyEmptyColumns";

value= "Y";

output;

id= "Ids";

property="VariableValidation";

value= "STRICT";

output;

id= "Ids";

property="NewVariableRole";

value= "REJECT";

output;

id= "Ids";

property="DropMapVariables";

value= "Y";

output;

id= "Ids";

property="DsId";

value= "loans";

output;

id= "Ids";

property="DsSampleName";

value= "";

output;

id= "Ids";

property="DsSampleSizeType";

value= "";

output;

id= "Ids";

property="DsSampleSize";

value= "";

output;

id= "Ids";

property="DsCreatedBy";

value= "sasserver";

output;

id= "Ids";

property="DsCreateDate";

value= "1869380563.1";

output;

id= "Ids";

property="DsModifiedBy";

value= "sasserver";

output;

id= "Ids";

property="DsModifyDate";

value= "1869380563.1";

output;

id= "Ids";

property="DsScope";

value= "LOCAL";

output;

id= "Ids";

property="Sample";

value= "D";

output;

id= "Ids";

property="SampleSizeType";

value= "PERCENT";

output;

id= "Ids";

property="SampleSizePercent";

value= "20";

output;

id= "Ids";

property="SampleSizeObs";

value= "10000";

output;

id= "Ids";

property="DBPassThrough";

value= "Y";

output;

id= "Ids";

property="RunAction";

value= "Train";

output;

id= "Ids";

property="Component";

value= "DataSource";

output;

id= "Ids";

property="Description";

value= "";

output;

id= "Ids";

property="EM\_VARIABLEATTRIBUTES";

value= "WORK.Ids\_VariableAttribute";

output;

id= "Ids";

property="EM\_DECMETA\_not\_fully\_paid";

value= "WORK.Ids\_not\_fully\_paid\_DM";

output;

id= "Ids";

property="EM\_DECDATA\_not\_fully\_paid";

value= "WORK.Ids\_not\_fully\_paid\_DD";

output;

id= "Ids";

property="EM\_FILE\_EMNOTES";

value= "Ids\_EMNOTES.txt";

output;

id= "EMCODE";

property="UsePriors";

value= "Y";

output;

id= "EMCODE";

property="ToolType";

value= "UTILITY";

output;

id= "EMCODE";

property="DataNeeded";

value= "N";

output;

id= "EMCODE";

property="PublishCode";

value= "PUBLISH";

output;

id= "EMCODE";

property="ScoreCodeFormat";

value= "DATASTEP";

output;

id= "EMCODE";

property="MetaAdvisor";

value= "BASIC";

output;

id= "EMCODE";

property="ForceRun";

value= "N";

output;

id= "EMCODE";

property="RunAction";

value= "Train";

output;

id= "EMCODE";

property="Component";

value= "SASCode";

output;

id= "EMCODE";

property="ToolPrefix";

value= "EMCODE";

output;

id= "EMCODE";

property="EM\_FILE\_USERTRAINCODE";

value= "EMCODE\_USERTRAINCODE.sas";

output;

id= "EMCODE";

property="EM\_FILE\_EMNOTES";

value= "EMCODE\_EMNOTES.txt";

output;

id= "AutoNeural";

property="Architecture";

value= "SINGLE LAYER";

output;

id= "AutoNeural";

property="TrainAction";

value= "SEARCH";

output;

id= "AutoNeural";

property="Termination";

value= "OVERFITTING";

output;

id= "AutoNeural";

property="TargetError";

value= "DEFAULT";

output;

id= "AutoNeural";

property="Hidden";

value= "1";

output;

id= "AutoNeural";

property="TotalHidden";

value= "30";

output;

id= "AutoNeural";

property="MaxIter";

value= "8";

output;

id= "AutoNeural";

property="AdjustIterations";

value= "Y";

output;

id= "AutoNeural";

property="FinalTrain";

value= "Y";

output;

id= "AutoNeural";

property="FinalIter";

value= "5";

output;

id= "AutoNeural";

property="TotalTime";

value= "1 HOUR";

output;

id= "AutoNeural";

property="Freeze";

value= "N";

output;

id= "AutoNeural";

property="Direct";

value= "N";

output;

id= "AutoNeural";

property="Tanh";

value= "Y";

output;

id= "AutoNeural";

property="Normal";

value= "N";

output;

id= "AutoNeural";

property="Sine";

value= "N";

output;

id= "AutoNeural";

property="Exponential";

value= "N";

output;

id= "AutoNeural";

property="Identity";

value= "N";

output;

id= "AutoNeural";

property="Logistic";

value= "N";

output;

id= "AutoNeural";

property="Reciprocal";

value= "N";

output;

id= "AutoNeural";

property="Softmax";

value= "N";

output;

id= "AutoNeural";

property="Square";

value= "N";

output;

id= "AutoNeural";

property="Tolerance";

value= "LOW";

output;

id= "AutoNeural";

property="Residuals";

value= "Y";

output;

id= "AutoNeural";

property="Standardizations";

value= "N";

output;

id= "AutoNeural";

property="HiddenUnits";

value= "N";

output;

id= "AutoNeural";

property="outfit";

value= "";

output;

id= "AutoNeural";

property="weights";

value= "";

output;

id= "AutoNeural";

property="estds";

value= "";

output;

id= "AutoNeural";

property="Bestds";

value= "";

output;

id= "AutoNeural";

property="HistoryDs";

value= "";

output;

id= "AutoNeural";

property="ForceRun";

value= "N";

output;

id= "AutoNeural";

property="RunAction";

value= "Train";

output;

id= "AutoNeural";

property="Component";

value= "AutoNeural";

output;

id= "AutoNeural";

property="EM\_FILE\_EMNOTES";

value= "AutoNeural\_EMNOTES.txt";

output;

run;

\*------------------------------------------------------------\*;

\* Create connections data set;

\*------------------------------------------------------------\*;

data connect;

length from to $12;

from="AutoNeural";

to="EMCODE";

output;

from="Ids2";

to="Part";

output;

from="Reg";

to="AutoNeural";

output;

from="Trans";

to="Reg";

output;

from="Impt";

to="Trans";

output;

from="Part";

to="Impt";

output;

from="Stat";

to="Part";

output;

from="Ids";

to="Stat";

output;

run;

\*------------------------------------------------------------\*;

\* Create actions to run data set;

\*------------------------------------------------------------\*;

%macro emaction;

%let actionstring = %upcase(&EM\_ACTION);

%if %index(&actionstring, RUN) or %index(&actionstring, REPORT) %then %do;

data actions;

length id $12 action $40;

id="EMCODE";

%if %index(&actionstring, RUN) %then %do;

action='run';

output;

%end;

%if %index(&actionstring, REPORT) %then %do;

action='report';

output;

%end;

run;

%end;

%mend;

%emaction;

\*------------------------------------------------------------\*;

\* Execute the actions;

\*------------------------------------------------------------\*;

%em5batch(execute, workspace=workspace, nodes=nodes, connect=connect, datasources=datasources, nodeprops=nodeprops, action=actions);