SAS Output Page 1 of 9

# **Bank Marketing**

Obs	age	job	marital	education	default	balance	housing	loan	contact	day	month	duration	campaign	pdays	previous	poutcome	у
1	30	unemployed	married	primary	no	1787	no	no	cellular	19	oct	79	1	-1	0	unknown	no
2	33	services	married	secondary	no	4789	yes	yes	cellular	11	may	220	1	339	4	failure	no
3	35	management	single	tertiary	no	1350	yes	no	cellular	16	apr	185	1	330	1	failure	no
4	30	management	married	tertiary	no	1476	yes	yes	unknown	3	jun	199	4	-1	0	unknown	no
5	59	blue-collar	married	secondary	no	0	yes	no	unknown	5	may	226	1	-1	0	unknown	no
6	35	management	single	tertiary	no	747	no	no	cellular	23	feb	141	2	176	3	failure	no
7	36	self-employed	married	tertiary	no	307	yes	no	cellular	14	may	341	1	330	2	other	no
8	39	technician	married	secondary	no	147	yes	no	cellular	6	may	151	2	-1	0	unknown	no
9	41	entrepreneur	married	tertiary	no	221	yes	no	unknown	14	may	57	2	-1	0	unknown	no
10	43	services	married	primary	no	-88	yes	yes	cellular	17	apr	313	1	147	2	failure	no

SAS Output
Page 2 of 9

## **Bank Marketing**

### The CONTENTS Procedure

<b>Data Set Name</b>	WORK.BANK_MARKETING	Observations	4521
Member Type	DATA	Variables	17
Engine	V9	Indexes	0
Created	04/10/2022 23:51:43	Observation Length	136
Last Modified	04/10/2022 23:51:43	<b>Deleted Observations</b>	0
Protection		Compressed	NO
Data Set Type		Sorted	NO
Label			
Data Representation	WINDOWS_64		
Encoding	wlatin1 Western (Windows)		

Engine/Host Dependent Information						
Data Set Page Size	65536					
Number of Data Set Pages	10					
First Data Page	1					
Max Obs per Page	481					
Obs in First Data Page	461					
Number of Data Set Repairs	0					
ExtendObsCounter	YES					
Filename	C:\Users\pime\AppData\Local\Temp\SAS Temporary Files\_TD18592_BigDataW22-12_\bank_marketing.sas7bdat					
Release Created	9.0401M5					
Host Created	X64_SRV16					
Owner Name	RUAD\pime					
File Size	704KB					
File Size (bytes)	720896					

SAS Output
Page 3 of 9

Α	Alphabetic List of Variables and Attributes								
#	Variable	Туре	Len	Format	Informat				
1	age	Num	8	BEST12.	BEST32.				
6	balance	Num	8	BEST12.	BEST32.				
13	campaign	Num	8	BEST12.	BEST32.				
9	contact	Char	10	\$10.	\$10.				
10	day	Num	8	BEST12.	BEST32.				
5	default	Char	4	\$4.	\$4.				
12	duration	Num	8	BEST12.	BEST32.				
4	education	Char	11	\$11.	\$11.				
7	housing	Char	5	\$5.	\$5.				
2	job	Char	15	\$15.	\$15.				
8	loan	Char	5	\$5.	\$5.				
3	marital	Char	9	\$9.	\$9.				
11	month	Char	5	\$5.	\$5.				
14	pdays	Num	8	BEST12.	BEST32.				
16	poutcome	Char	9	\$9.	\$9.				
15	previous	Num	8	BEST12.	BEST32.				
17	у	Char	5	\$5.	\$5.				

SAS Output Page 4 of 9

## **Bank Marketing**

Performance Information						
<b>Execution Mode</b>	Single-Machine					
Number of Threads	2					

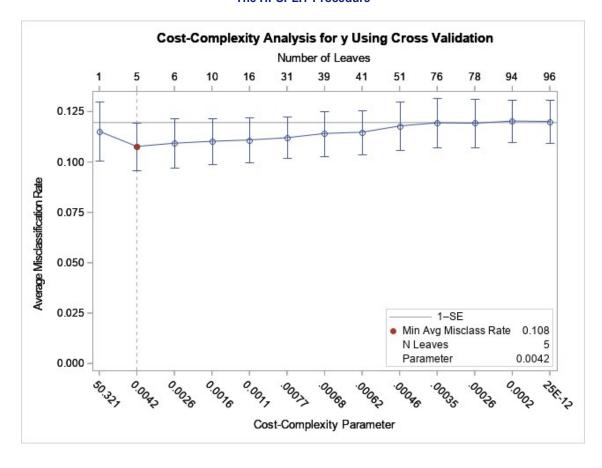
Data Access Information							
Data	Engine	Role	Path				
WORK.BANK_MARKETING	V9	Input	On Client				

Model Information						
Split Criterion Used	Entropy					
Pruning Method	Cost-Complexity					
Subtree Evaluation Criterion	Cost-Complexity					
Number of Branches	2					
Maximum Tree Depth Requested	10					
Maximum Tree Depth Achieved	10					
Tree Depth	3					
Number of Leaves Before Pruning	110					
Number of Leaves After Pruning	5					
Model Event Level	no					

Number of Observations Read	4521
Number of Observations Used	4521

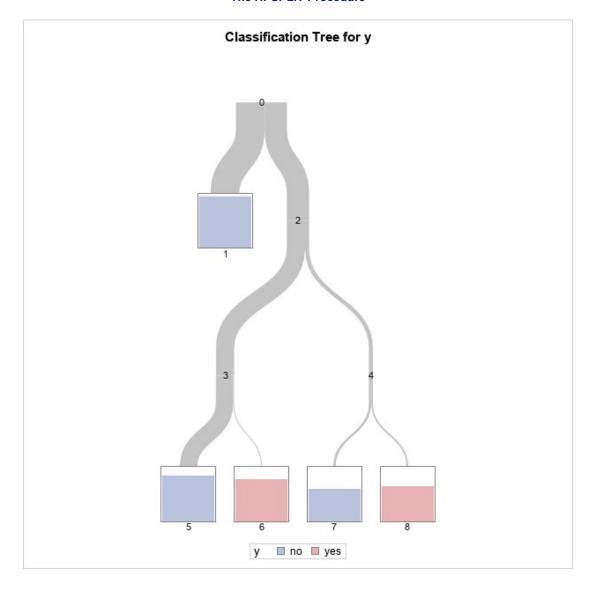
SAS Output
Page 5 of 9

**Bank Marketing** 

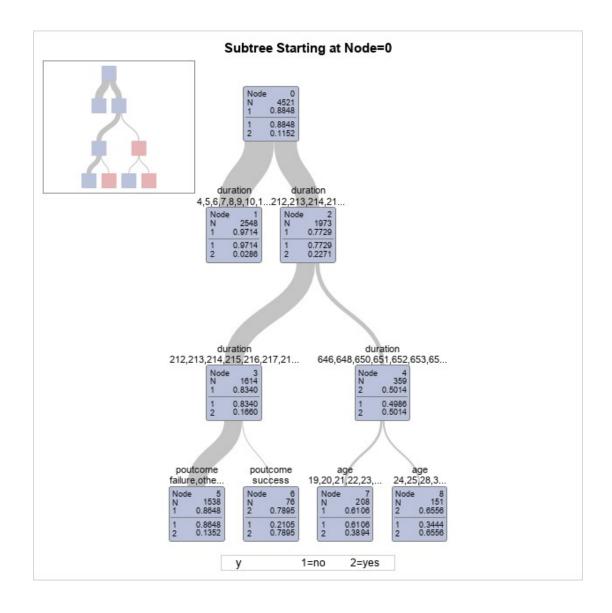


SAS Output
Page 6 of 9

## **Bank Marketing**



SAS Output
Page 7 of 9



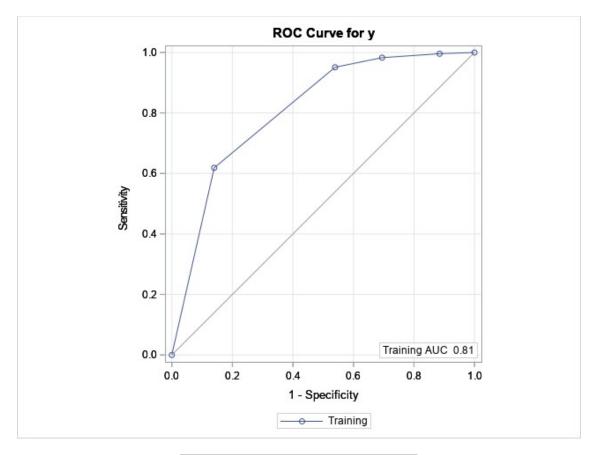
SAS Output Page 8 of 9

## **Bank Marketing**

Model-Based Confusion Matrix							
	Predi	Error					
Actual	no	yes	Rate				
no	3932	68	0.0170				
yes	362	159	0.6948				

Model-Based Fit Statistics for Selected Tree								
N Leaves	ASE	Mis- class	Sensitivity	Specificity	Entropy	Gini	RSS	AUC
5	0.0767	0.0951	0.9830	0.3052	0.3881	0.1535	693.9	0.8101

SAS Output
Page 9 of 9



Variable Importance							
	Training						
Variable	Relative	Importance	Count				
duration	1.0000	12.3938	2				
poutcome	0.6353	7.8737	1				
age	0.2841	3.5213	1				