```
 1  *-------------------------------------------------------------
    -*
 2  User:                 u63452984
 3  Date:                 07 January 2024
 4  Time:                 06:40:18
 5  *-------------------------------------------------------------
    -*
 6  * Training Output
 7  *-------------------------------------------------------------
    -*
 8
 9
10
11
12  Variable Summary
13
14             Measurement     Frequency
15  Role         Level           Count
16
17  ID         INTERVAL            1
18  INPUT      INTERVAL            3
19  INPUT      NOMINAL             3
20  TARGET     BINARY              1
21
22
23
24
25  Model Events
26
27                                       Number
28                       Measurement        of
29   Target    Event      Level          Levels      Order
         Label
30
31  IMP_Churn       1       BINARY           2       Descending
    Imputed Churn
```

```
32
33
34
35
36 Predicted and decision variables
37
38 Type            Variable         Label
39
40 TARGET          IMP_Churn        Imputed Churn
41 PREDICTED       P_IMP_Churn1     Predicted: IMP_Churn=1
42 RESIDUAL        R_IMP_Churn1     Residual: IMP_Churn=1
43 PREDICTED       P_IMP_Churn0     Predicted: IMP_Churn=0
44 RESIDUAL        R_IMP_Churn0     Residual: IMP_Churn=0
45 FROM            F_IMP_Churn      From: IMP_Churn
46 INTO            I_IMP_Churn      Into: IMP_Churn
47
48
49 *-------------------------------------------------------------
   -*
50 * Score Output
51 *-------------------------------------------------------------
   -*
52
53
54
55 Variable Importance
56
57 Obs    NAME                       LABEL              NRULES      IM
   PORTANCE    VIMPORTANCE    RATIO
58
59  1     IMP_TotalSpent     Imputed TotalSpent      53
   1.00000        0.76677     0.76677
60  2     TotalPurchases                             28
   0.91418        1.00000     1.09388
61  3     Age                                        31
   0.65716        0.35566     0.54121
```

```
62  4     MembershipLevel                                  12
   0.31802       0.10779       0.33893
63

64

65  *------------------------------------------------------------
   -*
66  * Report Output
67  *------------------------------------------------------------
   -*
68

69

70

71

72  Fit Statistics

73

74  Target=IMP_Churn Target Label=Imputed Churn

75

76     Fit
77  Statistics     Statistics Label                    Train
   Validation
78

79  _NOBS_        Sum of Frequencies                17497.00
      7502.00
80  _SUMW_        Sum of Case Weights Times Freq    34994.00
   15004.00
81  _MISC_        Misclassification Rate                0.22
        0.22
82  _MAX_         Maximum Absolute Error                0.85
        0.85
83  _SSE_         Sum of Squared Errors              5953.63
   2564.89
84  _ASE_         Average Squared Error                 0.17
        0.17
85  _RASE_        Root Average Squared Error            0.41
        0.41
86  _DIV_         Divisor for ASE                   34994.00
```

```
          15004.00
87   _DFT_          Total Degrees of Freedom          17497.00
                .

88

89

90

91

92 Classification Table

93

94 Data Role=TRAIN Target Variable=IMP_Churn Target Label=Imput
   ed Churn

95

96                                Target         Outcome        Frequency
          Total
97 Target     Outcome      Percentage      Percentage        Count
       Percentage

98

99   0          0        78.0253        99.5216         13521
       77.2761

100  1          0        21.9747        97.3664          3808
       21.7637

101  0          1        38.6905        0.4784            65
       0.3715

102  1          1        61.3095        2.6336           103
       0.5887

103

104

105 Data Role=VALIDATE Target Variable=IMP_Churn Target Label=Im
    puted Churn

106

107                                Target         Outcome        Frequency
          Total
108 Target     Outcome      Percentage      Percentage        Count
       Percentage

109

110  0          0        77.9135        99.6394          5803
```

```
      77.3527
111   1            0            22.0865          98.0334          1645
         21.9275
112   0            1            38.8889          0.3606           21
         0.2799
113   1            1            61.1111          1.9666           33
         0.4399
114
115
116
117
118  Event Classification Table
119
120  Data Role=TRAIN Target=IMP_Churn Target Label=Imputed Churn
121
122    False         True           False          True
123  Negative      Negative       Positive       Positive
124
125    3808          13521           65             103
126
127
128  Data Role=VALIDATE Target=IMP_Churn Target Label=Imputed Chu
     rn
129
130    False         True           False          True
131  Negative      Negative       Positive       Positive
132
133    1645          5803            21             33
134
135
136
137
138  Assessment Score Rankings
139
140  Data Role=TRAIN Target Variable=IMP_Churn Target Label=Imput
     ed Churn
```

Depth	Cumulative Gain	Lift	Cumulative Lift	% Response	Cumulative % Response	Number of Observations	Mean Posterior Probability
5	92.1058	1.92106	1.92106	42.9403	42.9403	875	0.39470
10	56.7105	1.21315	1.56711	27.1169	35.0286	875	0.27736
15	40.1788	1.07115	1.40179	23.9429	31.3333	875	0.24723
20	31.7425	1.06434	1.31743	23.7905	29.4476	875	0.23786
25	27.0557	1.08308	1.27056	24.2095	28.4000	875	0.23232
30	23.8049	1.07551	1.23805	24.0402	27.6734	875	0.22735
35	21.8531	1.10129	1.21853	24.6165	27.2371	874	0.22251
40	19.3352	1.01713	1.19335	22.7352	26.6743	875	0.21838
45	17.3163	1.01167	1.17316	22.6133	26.2230	875	0.21497
50	15.4115	0.98270	1.15411	21.9657	25.7972	875	0.21227
55	13.4089	0.93386	1.13409	20.8739	25.3496	875	0.21003
60	11.5511	0.91117	1.11551	20.3669	24.9343	875	0.20780
65	10.1848	0.93791	1.10185	20.9646	24.6290	875	0.20576
70	8.8766	0.91852	1.08877	20.5311	24.3365	874	0.20376

Depth	Gain	Lift	Cumulative Lift	% Response	Cumulative % Response	Number of Observations	Mean Posterior Probability
160 75	7.1317	0.82707	1.07132	18.4870	23.9465	875	0.20171
161 80	5.5557	0.81920	1.05556	18.3111	23.5942	875	0.19956
162 85	4.1127	0.81028	1.04113	18.1117	23.2717	875	0.19737
163 90	2.7087	0.78844	1.02709	17.6235	22.9579	875	0.19422
164 95	1.8729	0.86830	1.01873	19.4086	22.7710	875	0.18961
165 100	0.0000	0.64378	1.00000	14.3901	22.3524	874	0.17648

166

167

168 Data Role=VALIDATE Target Variable=IMP_Churn Target Label=Imputed Churn

169

170

| | | | Mean | | | | |
171 Depth	Gain	Lift	Cumulative Lift	% Response	Cumulative % Response	Number of Observations	Posterior Probability
174 5	85.4906	1.85491	1.85491	41.4894	41.4894	376	0.38858
175 10	50.6141	1.15645	1.50614	25.8667	33.6884	375	0.27843
176 15	34.4681	1.02133	1.34468	22.8444	30.0770	375	0.24755
177 20	29.2164	1.13447	1.29216	25.3752	28.9023	375	0.23805
178 25	21.3820	0.90024	1.21382	20.1359	27.1500	375	0.23285
179 30	15.7919	0.87826	1.15792	19.6444	25.8996	375	0.22790

180	35	15.0899	1.10876	1.15090	24.8000	2
	5.7426		375		0.22331	
181	40	11.7327	0.88224	1.11733	19.7333	2
	4.9917		375		0.21907	
182	45	10.8430	1.03723	1.10843	23.2000	2
	4.7927		375		0.21548	
183	50	8.7207	0.89615	1.08721	20.0444	2
	4.3180		375		0.21266	
184	55	6.3805	0.83035	1.06381	18.5727	2
	3.7945		376		0.21029	
185	60	6.2982	1.05392	1.06298	23.5733	2
	3.7761		375		0.20793	
186	65	4.8717	0.87747	1.04872	19.6267	2
	3.4570		375		0.20592	
187	70	3.5360	0.86164	1.03536	19.2727	2
	3.1583		375		0.20392	
188	75	2.2396	0.84084	1.02240	18.8073	2
	2.8683		375		0.20189	
189	80	2.2940	1.03109	1.02294	23.0629	2
	2.8805		375		0.19962	
190	85	1.2222	0.84068	1.01222	18.8038	2
	2.6407		375		0.19737	
191	90	0.5135	0.88462	1.00514	19.7867	2
	2.4822		375		0.19416	
192	95	0.7775	1.05530	1.00777	23.6043	2
	2.5413		375		0.18940	
193	100	0.0000	0.85224	1.00000	19.0624	2
	2.3674		375		0.17610	

194

195

196

197

198 Assessment Score Distribution

199

200 Data Role=TRAIN Target Variable=IMP_Churn Target Label=Imputed Churn

```
201
202   Posterior        Number                      Mean
203  Probability         of        Number of     Posterior
204     Range          Events     Nonevents     Probability     Percent
     age
205
206   0.70-0.75         11            1           0.70837          0.06
      86
207   0.65-0.70         17            7           0.68030          0.13
      72
208   0.60-0.65         24           14           0.62230          0.21
      72
209   0.55-0.60         22           18           0.57141          0.22
      86
210   0.50-0.55         29           25           0.52621          0.30
      86
211   0.45-0.50         32           35           0.47713          0.38
      29
212   0.40-0.45         30           27           0.42379          0.32
      58
213   0.35-0.40         54           88           0.37366          0.81
      16
214   0.30-0.35        121          213           0.31330          1.90
      89
215   0.25-0.30        329          883           0.27452          6.92
      69
216   0.20-0.25       2516         8851           0.21755         64.96
      54
217   0.15-0.20        725         3414           0.19109         23.65
      55
218   0.10-0.15          1           10           0.14686          0.06
      29
219
220
221  Data Role=VALIDATE Target Variable=IMP_Churn Target Label=Im
     puted Churn
```

222

Posterior Probability Range	Number of Events	Number of Nonevents	Mean Posterior Probability	Percentage
0.70-0.75	3	2	0.71187	0.0666
0.65-0.70	4	1	0.67444	0.0666
0.60-0.65	7	8	0.62303	0.1999
0.55-0.60	9	6	0.57684	0.1999
0.50-0.55	10	4	0.52076	0.1866
0.45-0.50	17	15	0.47867	0.4266
0.40-0.45	19	11	0.42803	0.3999
0.35-0.40	34	40	0.37317	0.9864
0.30-0.35	45	101	0.31655	1.9461
0.25-0.30	136	389	0.27486	6.9981
0.20-0.25	1033	3847	0.21775	65.0493
0.15-0.20	359	1398	0.19083	23.4204
0.10-0.15	2	2	0.14837	0.0533