Summary Report for Decision Tree Model DecisionTree

Call:

rpart(formula = Credit.Application.Result ~ Account.Balance + Duration.of.Credit.Month + Payment.Status.of.Previous.Credit + Purpose + Credit.Amount + Value.Savings.Stocks + Length.of.current.employment + Instalment.per.cent + Most.valuable.available.asset + Age.years + Type.of.apartment + No.of.Credits.at.this.Bank, data = the.data, minsplit = 20, minbucket = 7, usesurrogate = 2, xval = 10, maxdepth = 20, cp = 1e-05)

Model Summary

Variables actually used in tree construction:

[1] Account.Balance Duration.of.Credit.Month Value.Savings.Stocks

Root node error: 97/350 = 0.27714

n= 350

Pruning Table

Level	CP	Num Splits	Rel Error	X Error	X Std Dev
1	0.068729	0	1.00000	1.00000	0.086326
2	0.041237	3	0.79381	0.92784	0.084295

Leaf Summary

node), split, n, loss, yval, (yprob)

* denotes terminal node

1) root 350 97 Creditworthy (0.7228571 0.2771429)

2) Account.Balance=Some Balance 166 20 Creditworthy (0.8795181 0.1204819) *

3) Account.Balance=No Account 184 77 Creditworthy (0.5815217 0.4184783)

6) Duration.of.Credit.Month< 13 74 18 Creditworthy (0.7567568 0.2432432) *

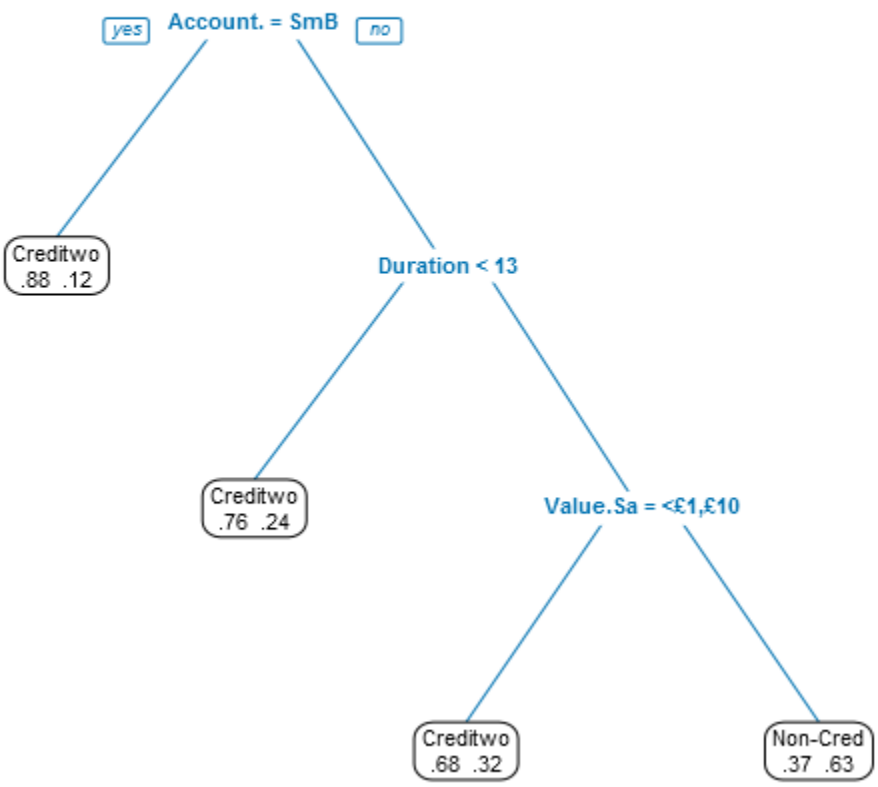
7) Duration.of.Credit.Month>=13 110 51 Non-Creditworthy (0.4636364 0.5363636)

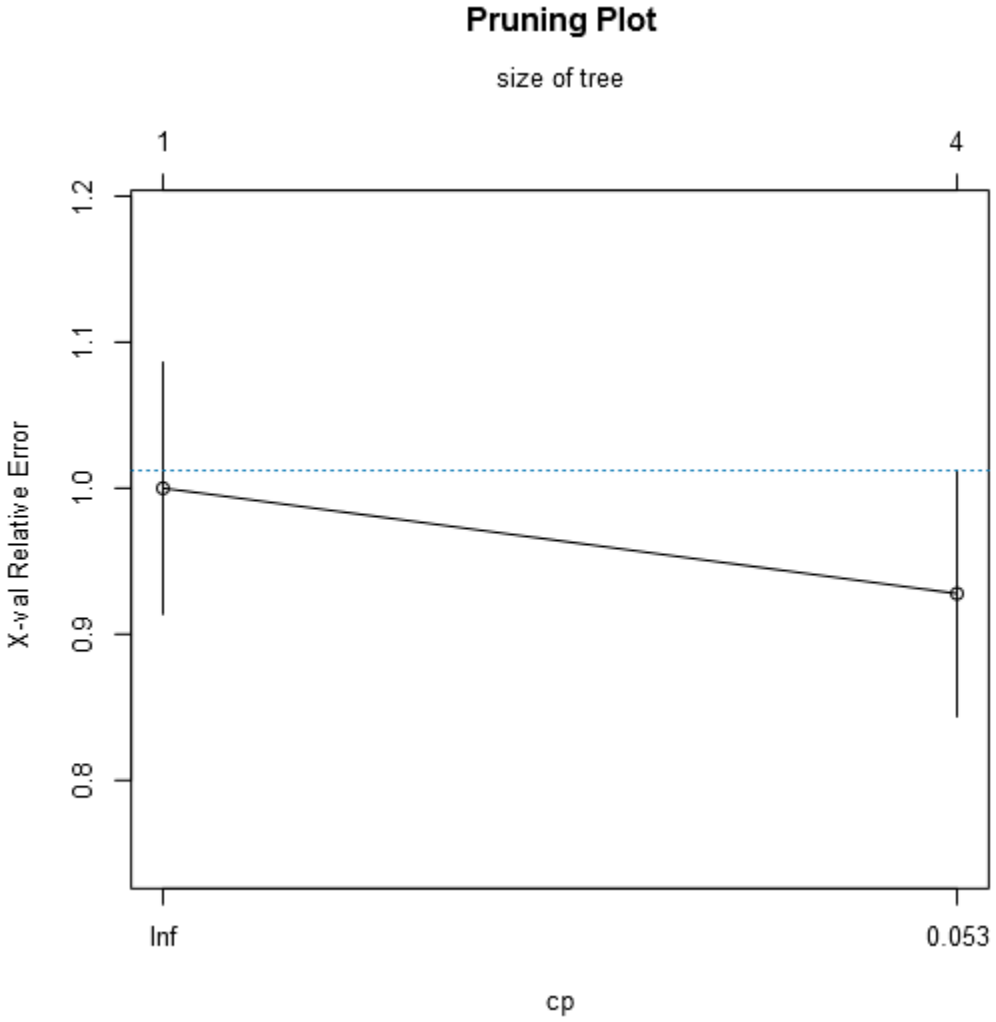
14) Value.Savings.Stocks=< £100,£100-£1000 34 11 Creditworthy (0.6764706 0.3235294) *

15) Value.Savings.Stocks=None 76 28 Non-Creditworthy (0.3684211 0.6315789) *

Plots

Tree Plot


yes
Account. = SmB
no
Creditwo
.88 .12
Duration < 13
Creditwo
.76 .24
Value.Sa = <£1,£10
Creditwo
.68 .32
Non-Cred
.37 .63


Pruning Plot
size of tree
1
4
1.2
1.1
1.0
0.9
0.8
X-val Relative Error
Inf
0.053
cp