**Output**

**Accuracy Data Set 1 -> 71.9%**

**Summary**:

|  |
| --- |
| printcp(fit1)  Classification tree:  rpart(formula = Class ~ XB + XC + XD + XE + XF + XG + XH + XI +  XJ + XK + XL + XM + XN + XO + XP + XQ + XR + XS + XT + XU,  data = training\_data\_01, method = "class")  Variables actually used in tree construction:  [1] XB XD XF XG XI XK XM XO XQ XS XU  Root node error: 1300/2600 = 0.5  n= 2600  CP nsplit rel error xerror xstd  1 0.172308 0 1.00000 1.04923 0.019588  2 0.042308 1 0.82769 0.82769 0.019318  3 0.015385 3 0.74308 0.75231 0.019000  4 0.014615 5 0.71231 0.64923 0.018366  5 0.013846 10 0.60692 0.61538 0.018103  6 0.013462 14 0.55154 0.57692 0.017770  7 0.011538 16 0.52462 0.54462 0.017460  8 0.010000 18 0.50154 0.51769 0.017180  **PLOTS:** |
|  |
| |  | | --- | |  | |

**Accuracy Data Set 2 -> 76 %**

**Summary:**

printcp(fit1)

Classification tree:

rpart(formula = Class ~ XB + XC + XD + XE + XF + XG + XH + XI +

XJ + XK + XL + XM + XN + XO + XP + XQ + XR + XS + XT + XU,

data = train\_data1, method = "class")

Variables actually used in tree construction:

[1] XB XC XD XF XG XI XJ XK XO XQ XS XU

Root node error: 600/1200 = 0.5

n= 1200

CP nsplit rel error xerror xstd

1 0.170000 0 1.00000 1.09333 0.028742

2 0.050833 1 0.83000 0.83000 0.028447

3 0.033333 3 0.72833 0.72833 0.027782

4 0.031667 4 0.69500 0.71833 0.027699

5 0.030000 8 0.56833 0.67333 0.027284

6 0.029167 9 0.53833 0.59000 0.026330

7 0.016667 11 0.48000 0.52000 0.025325

8 0.013333 13 0.44667 0.49667 0.024944

9 0.010000 17 0.39333 0.42833 0.023685

**PLOTS:**







