Decision Tree

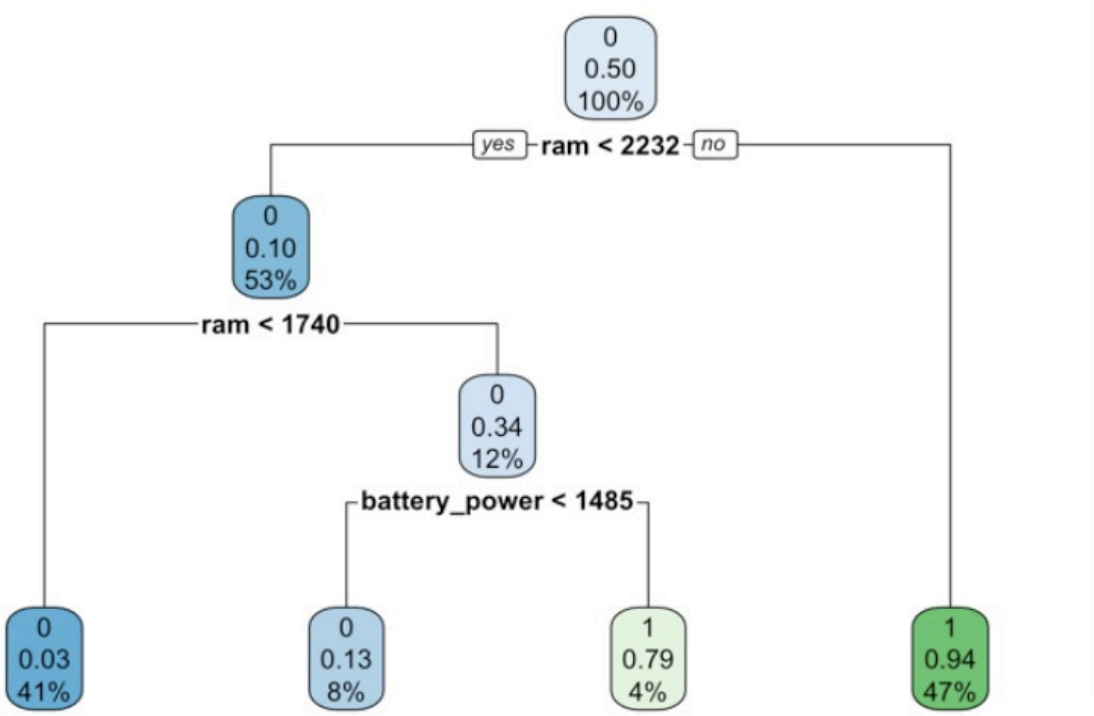
```
m_binary <- m[, !c("price_range", "p0", "p1", "p2", "p3")]
```

Split our data set on training and testing subset.

```
set.seed(810)
sampleSplit <- sample.split(Y=m_binary$price_binary, SplitRatio=0.7)
trainSet <- subset(x=m_binary, sampleSplit==TRUE)
testSet <- subset(x=m_binary, sampleSplit==FALSE)
```

```
dt_model_binary <- rpart(
  price_binary ~ .,
  data=trainSet,
  method="class"
)
```

```
rpart.plot(dt_model_binary)
```



```
preds <- predict(dt_model_binary, testSet[,!c("price_binary")],type="class")
preds <- as.numeric(preds) - 1
```

```
confusionMatrix(table(testSet$price_binary, preds))
```

```
## Confusion Matrix and Statistics
##
##    preds
##       0   1
##   0 267  33
##   1  20 280
##
##                Accuracy : 0.9117
##                  95% CI : (0.886, 0.9331)
##     No Information Rate : 0.5217
##     P-Value [Acc > NIR] : < 2e-16
##
##                   Kappa : 0.8233
##
##  Mcnemar's Test P-Value : 0.09929
##
##             Sensitivity : 0.9303
##             Specificity : 0.8946
##          Pos Pred Value : 0.8900
##          Neg Pred Value : 0.9333
##              Prevalence : 0.4783
##          Detection Rate : 0.4450
##    Detection Prevalence : 0.5000
##       Balanced Accuracy : 0.9124
##
##        'Positive' Class : 0
##
```