Machine Learning Quiz 3

1. Load the cell segmentation data from the AppliedPredictiveModeling package.

```
library(AppliedPredictiveModeling); library(caret);  library(rpart)
```

```
## Loading required package: lattice
```

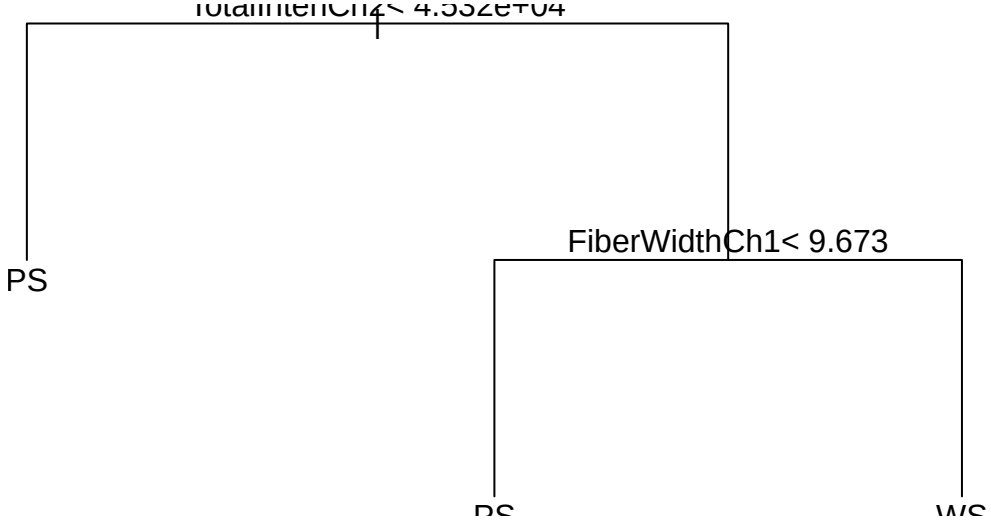
```
## Loading required package: ggplot2
```

```
data(segmentationOriginal)

# 1. Subset the data to a training set and testing set based on the Case variable in the data set.
training <- segmentationOriginal[segmentationOriginal$Case=="Train",]
testing <- segmentationOriginal[segmentationOriginal$Case=="Test",]

# 2. Set the seed to 125 and fit a CART model with the rpart method using all predictor variables and d
set.seed(125)
modFit <- train(Class ~., method="rpart", data=training)

plot(modFit$finalModel, uniform=T)
text(modFit$finalModel)
```




```
# 3. In the final model what would be the final model prediction for cases with the following variable

#predict(modFit, newdata=testing[testing$TotalIntenCh2==23000 & testing$FiberWidthCh1==10 & testing$Per

#predict(modFit, newdata=testing[testing$TotalIntenCh2==50000 & testing$FiberWidthCh1==10 & testing$Var

#predict(modFit, newdata=testing[testing$TotalIntenCh2==57000 & testing$FiberWidthCh1==8 & testing$VarI

#predict(modFit, newdata=testing[testing$FiberWidthCh1==8 & testing$VarIntenCh4==100 & testing$PerimSta
```