

```

data <- read.csv('D:/germancredit.csv')
head(data)
data$Default <- as.factor(data$Default)

library(randomForest)
library(rpart)
library(rpart.plot)

#Decision Tree
german.tree <- rpart(Default~.,data=data,minsplit=50,cp=0.01)
print(german.tree)
rpart.plot(german.tree)
german.class <- predict(german.tree,type="class")
table(data$Default,german.class)

#Random Forest
german.rf <-
randomForest(Default~.,data=data,ntree=1000,mtry=10,importance=TRUE)
print(german.rf)

im <- importance(german.rf) #p<0.0001
im[order(im[,3],decreasing =TRUE ),]

#w<0.0001 MeanDecreaseAccuracy<0.0001

plot(german.rf)
german.rfclass <- predict(german.rf,newdata=data) #training

data<=>G

german.rfclass2 <- predict(german.rf) #OOB<=>G
table(data$Default,german.rfclass)

```