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���ݩʭ��n��

im[order(im[,3],decreasing =TRUE ),] #�w��MeanDecreaseAccuracy�Ƨ�

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)