exp<-read.csv("creditNA.csv",header=TRUE)

exp$A1=as.factor(exp$A1)

exp$A4=as.factor(exp$A4)

exp$A5=as.factor(exp$A5)

exp$A6=as.factor(exp$A6)

exp$A7=as.factor(exp$A7)

exp$A9=as.factor(exp$A9)

exp$A10=as.factor(exp$A10)

exp$A12=as.factor(exp$A12)

exp$A13=as.factor(exp$A13)

exp$A16=as.factor(exp$A16)

exp$A3=as.numeric(exp$A3)

exp$A11=as.numeric(exp$A11)

exp$A8=as.numeric(exp$A8)

exp$A14=as.numeric(exp$A14)

exp$A15=as.numeric(exp$A15)

exp$A2=replace(exp$A2, is.na(exp$A2), mean(exp$A2, na.rm=T))

exp$A3=replace(exp$A3, is.na(exp$A3), mean(exp$A3, na.rm=T))

exp$A8=replace(exp$A8, is.na(exp$A8), mean(exp$A8, na.rm=T))

exp$A11=replace(exp$A11, is.na(exp$A11), mean(exp$A11, na.rm=T))

exp$A14=replace(exp$A14, is.na(exp$A14), mean(exp$A14, na.rm=T))

exp$A15=replace(exp$A15, is.na(exp$A15), mean(exp$A15, na.rm=T))

temp<-table(as.vector(exp$A1))

mod<-names(temp)[temp==max(temp)]

exp$A1=replace(exp$A1, is.na(exp$A1), mod)

temp<-table(as.vector(exp$A4))

mod<-names(temp)[temp==max(temp)]

exp$A4=replace(exp$A4, is.na(exp$A4), mod)

temp<-table(as.vector(exp$A5))

mod<-names(temp)[temp==max(temp)]

exp$A5=replace(exp$A5, is.na(exp$A5), mod)

temp<-table(as.vector(exp$A6))

mod<-names(temp)[temp==max(temp)]

exp$A6=replace(exp$A6, is.na(exp$A6), mod)

install.packages('e1071', dependencies=TRUE)

install.packages("caret")

install.packages("C50")

require(C50)

set.seed(999)

random<-runif(nrow(exp))

shuffle<-exp[order(random),]

trained<-C5.0(shuffle[1:345,-16],shuffle[1:345,16])

test<-predict(trained,shuffle[346:690,])

require(caret)

confusionMatrix(shuffle[346:690,16],test)