cad=read.csv("C:\\Users\\DIV007\\Desktop\\training\_dataset.csv")

library(FNN)

library(caret)

if(!require("pacman")){install.packages("pacman");library(pacman);}

-pacman::p\_load(stringr,knitr,nnet,caret,VGAM,MASS,mda,klaR,devtools,mda,kernlab,e1071,rpart,

+pacman::p\_load(reshape,stringr,knitr,nnet,caret,VGAM,MASS,mda,klaR,devtools,mda,kernlab,e1071,rpart,

rpart.plot,RWeka,ipred,randomForest,gbm,h2o,microbenchmark,dplyr,ggplot2,gridExtra,

RColorBrewer)

(stringr,knitr,nnet,caret,VGAM,MASS,mda,klaR,devtools,mda,kernlab,e1071,rpart,

rpart.plot,RWeka,ipred,randomForest,gbm,h2o,microbenchmark,dplyr,ggplot2,gridExtra,

RColorBrewer) )

model1=knn3(y~poutcome+previous+pdays+campaign+duration+month+day+contact+loan+housing+balance+default+education+marital+job+age

,data=cad,k=1+1)

summary(model1)

score=predict(model1, cad, type="prob")

cad\_score=cbind(cad, score)

cutpoints=seq(0,1,0.009)

sensitivity=seq(1,112,1)

specificity=seq(1,112,1)

cutpoint\_performance=cbind(cutpoints, sensitivity, specificity)

table(cad\_score$y)

for(i in 1:112)

{

cad\_score$predicted=ifelse(cad\_score$score<cutpoint\_performance[i,1],0,1)

cad\_score$sumed=cad\_score$predicted+cad\_score$y

cad\_score$pred1\_1=ifelse(cad\_score$sumed==2,1,0)

correct1\_1=sum(cad\_score$pred1\_1)

cad\_score$pred0\_0=ifelse(cad\_score$sumed==0,1,0)

correct0\_0=sum(cad\_score$pred0\_0)

cutpoint\_performance[i,2]=correct1\_1/2460

cutpoint\_performance[i,3]=correct0\_0/34186

}

cutvalue\_table=data.frame(cutpoint\_performance)

cutvalue\_table$diff=abs(cutvalue\_table$sensitivity-cutvalue\_table$specificity)

write.csv(cutvalue\_table, file="randfore\_cut.csv")

cad\_score$pred=ifelse(cad\_score$score<0.4,0,1)

cad\_sorted=cad\_score[order(-cad\_score$score),]

cad\_sorted$rowid=seq(1,36646,1)

cad\_sorted$grp=trunc((cad\_sorted$rowid/36646)\*10)+1

cad\_sorted$group=ifelse(cad\_sorted$grp==11, 10, cad\_sorted$grp)

gains\_chart=table(cad\_sorted$group,cad\_sorted$y)

cum\_events=cumsum(gains\_chart[,2])

cum\_prop\_events=cum\_events/2460

gains\_chart=cbind(gains\_chart, cum\_prop\_events)

gains\_chart

table(cad\_score$y,cad\_score$pred)