**NAIVE BAYE'S CLASSIFIER**

#install.packages("e1071")

library(e1071)

getwd()

setwd("C:\\Users\\10ani\\Desktop\\DS\_classes")

titanic=read.csv("titanic.csv")

load("titanic.raw.rdata") #LOAD CAN ONLY BE USED WHEN DATA FORMAT WILL BE .RAWDATA

titanic=write.csv(titanic.raw,"titanic.csv")

table(titanic.raw$Survived,titanic.raw$Class)

#sampling

set.seed(12345)

ind=sort(sample(nrow(titanic.raw),nrow(titanic.raw)\*.85))

train=titanic.raw[ind,]

test=titanic.raw[-ind,]

#execute model()

NB\_model=naiveBayes(Survived~.,data=train)

NB\_model

#prediction

pred=predict(NB\_model,test)

table(test$Survived,pred)

259/331

#.78 is the accuracy

########DO NAIVE BAYES USING TRAIN FUNCTION

library(caret)

xtrain=train[,-4]

ytrain=train$Survived

xtest=test[,-4]

ytest=test$Survived

NB\_modal=train(xtrain,ytrain,'nb',trcontrol=trainControl(method='cv',number=10))

NB\_modal

pred1=predict(NB\_modal$finalModel,xtest)

pred1

pred1$class

table(ytest,pred1$class)

(218+41)/331

.78 accuracy