>attach(naive\_Bayes)

> library(naivebayes)

> library(dplyr)

> library(ggplot2)

> library(psych)

> str(naive\_Bayes)

>xtabs(~admit+Rank,data = naive\_Bayes)

>naive\_Bayes$Rank<-as.factor(naive\_Bayes$Rank)

> naive\_Bayes$admit<-as.factor(naive\_Bayes$admit)

> str(naive\_Bayes)

>pairs.panels(naive\_Bayes[-1])

>naive\_Bayes%>%ggplot(aes(x=admit,y=grade,fill=admit))+geom\_boxplot()+ggtitle("Box plot")

>naive\_Bayes%>%ggplot(aes(x=admit,y=gpa,fill=admit))+geom\_boxplot()+ggtitle("Box plot")

>naive\_Bayes%>%ggplot(aes(x=grade,fill=admit))+geom\_density(alpha=0.8,color="black")+ggtitle("Density Plot")

>naive\_Bayes%>%ggplot(aes(x=gpa,fill=admit))+geom\_density(alpha=0.8,color="black")+ggtitle("Density Plot")

>ind<-sample(2,nrow(naive\_Bayes),replace = T,prob = c(0.8,0.2))

> train<-naive\_Bayes[ind==1,]

> test<-naive\_Bayes[ind==2,]

>model<-naive\_bayes(admit~.,data=train)

> model

>train%>%filter(admit=="0")%>%summarise(mean(grade),sd(grade))

>train%>%filter(admit=="0")%>%summarise(mean(gpa),sd(gpa))

>train%>%filter(admit=="1")%>%summarise(mean(grade),sd(grade))

>train%>%filter(admit=="1")%>%summarise(mean(gpa),sd(gpa))

>plot(model)

>p<-predict(model,train,type = "prob")

>head(cbind(p,train))

>p1<-predict(model,train)

>(tab1<-table(p1,train$admit))

>1-sum(diag(tab1))/sum(tab1)

>p2<-predict(model,test)

>(tab2<-table(p2,test$admit))

>1-sum(diag(tab2))/sum(tab2)

>model<-naive\_bayes(admit~.,data=train,usekernel = T)

>p2<-predict(model,test)

>(tab2<-table(p2,test$admit))

>1-sum(diag(tab2))/sum(tab2)