Roll No.: 40023

Date:

**Aim:** To perform practical of Logistics Regression.

**Program Code:**

library(datasets)

ir\_data<-iris

head(ir\_data)

str(ir\_data)

levels(ir\_data$species)

sum(is.na(ir\_data))

ir\_data<-ir\_data[1:100,]

set.seed(100)

samp<-sample(1:100,80)

ir\_test<-ir\_data[samp,]

ir\_ctrl<-ir\_data[-samp,]

install.packages("ggplot2")

library(ggplot2)

install.packages("GGally")

library(GGally)

ggpairs(ir\_test)

y<-ir\_test$Species;x<-ir\_test$Sepal.Length

glfit<-glm(y~x,family='binomial')

summary(glfit)

newdata<-data.frame(x=ir\_ctrl$Sepal.Length)

predicted\_val<-predict(glfit,newdata,type="response")

prediction<-data.frame(ir\_ctrl$Sepal.Length,ir\_ctrl$Species,predicted\_val)

prediction

qplot(prediction[,1],round(prediction[,3]),col=prediction[,2],xlab='Sepal Length',ylab='prediction using Logistic Reg.')

**Conclusion:** Practical of Logistics Regression has been executed successfully.