R Code

# Importing Dataset

data1<-read.csv("heart.csv",header=TRUE)

View(data)

# Hypothesis Testing

a<-data1$chol

# Calculate mean

mean(a)

# Calculate standard deviation

sd(a)

# t test of a against a null hypothesis

# that population mean (mu) is 240.770

t.test(a,mu=240.770)

# p-value is above 0.05 (p > 0.05), we accept the null hypothesis.

# Line Graph

b <- data1[1:20,"chol"]

plot(b,type="o",col="blue",xlab="Gender",ylab="chol",main="Heart details of Male and Cholesterol level")

# type o- Draw both parts and lines, type i- Draw only the lines, type p- Draw only the points.

# Pie Chart

c<-data1[1:13,"oldpeak"]

Labels<-data1[1:13,"oldpeak"]

pie(c,Labels,main="Old Peak in Heart Disease",col=rainbow(length(c)))

# Bar Plot

d<-data1[1:20,"age"]

e<-data1[1:20,"cp"]

barplot(d,names.arg=e,xlab="Age",ylab="CP",main="Details of Heart Disease Patient Ages and CP",col="rainbow")

#names.arg is the vector of names appearing under each bar

# Box Plot

input\_data<-data1[,c('age','cp')]

print(input\_data)

boxplot(age~cp,data=data1,xlab='No of Age',ylab='CP',main="Details of Heart Attack Patient", col=c("green","purple"))

# Scatter Plot

ss<-data1[1:303,c("trtbps","thalachh")]

print(ss)

plot(x=data1$trtbps,y=data1$thalachh,xlab="Trtbps",ylab="Thalachh",main="Trtbps Vs Thalachh",col="purple")