library(readxl)

telecom\_data <- read.csv("D:/Videos/Full Courses/Data science Videos Simplilearn/Data Science with R Programming/Comcast Telecom Complaints Data.csv")

head(telecom\_data)

str(telecom\_data)

na <- is.na(telecom\_data)

length(na[na==T])

library(dplyr) #load dplyr package

telecom\_data$Date = as.Date(telecom\_data$Date)

telecom\_data$Date= as.Date(as.character(telecom\_data$Date))

str(telecom\_data)

daily\_count = summarise(group\_by(telecom\_data,Date),count=n())

daily\_count

library(ggplot2) #load ggplot2 package

lineplot = ggplot(daily\_count,aes(x=Date,y=count))+geom\_line(size=1,colour="Red")+labs(title="Daily Ticket Counter", x="Days",y="No. of Tickets")

lineplot

library(dplyr) #load dplyr package

data=telecom\_data%>%mutate(Customer.Complaint=tolower(Customer.Complaint))

table = table(data$Customer.Complaint)

table = data.frame(table)

filter= table%>%rename(Customer.complaintType=Var1, frequency = Freq)

final <-filter%>%arrange(desc(frequency) )

str(final)

finall = head(final,6)

finall

#BarPlot

library(ggplot2) #load ggplot2 package

ggplot(finall,aes(Customer.complaintType,frequency))+geom\_bar(stat = "identity", color= "Red", fill="Light blue", size = 2)+labs(x="Complaints Type",y="Frequency")

open = (telecom\_data$Status == "Open"| telecom\_data$Status == "Pending")

closed = (telecom\_data$Status == "Closed"| telecom\_data$Status == "Solved")

telecom\_data$Status[open] = "Open"

telecom\_data$Status[closed] = "Closed"

telecom\_data=group\_by(telecom\_data,State,Status)

head(telecom\_data,5)

chart = summarise(telecom\_data, Count = n())

ggplot(data.frame(chart), mapping = aes(State,Count)) + geom\_col(aes(fill = Status), width = 0.8, color = "Blue", size = 0.5) + theme(axis.text.x = element\_text(angle = 60), axis.text.y = element\_text(angle = 10), axis.title.x = element\_text(angle = 15), title = element\_text(size = 10, colour = "Green"), plot.title = element\_text(hjust = 0.5))+ labs(title = "Ticket Status Stcked Bar Chart", x = "States", y ="No. of Tickets", fill = "Status")

ggplot(telecom\_data,aes(y=Received.Via))+geom\_bar(aes(fill=Status),color = "Dark Green", size = 2)

df = table(telecom\_data$Received.Via, telecom\_data$Status)

df = cbind(df, Total = rowSums(df))

df

slices = c(864,255)

lbls = c("closed","open")

pct = round(slices/sum(slices)\*100)

lbls = paste(lbls, pct) # add percents to labels

#added % to labels

lbls = paste(lbls, "%", sep = "")

pie(slices, labels = lbls, col = rainbow(length(lbls)), main = "Pie chart received via call")

slices1 = c(843,262)

lbls1 = c("closed","open")

pct1 = round(slices1/sum(slices1)\*100)

lbls1 = paste(lbls1,pct1)

lbls1 = paste(lbls1, "%", sep = "")

pie(slices1, labels = lbls1, col = rainbow(length(lbls1)), main = "Pie chart received via internet")