```
install.packages("arules")
install.packages("arulesViz")
install.packages("tidyverse")
library(arules)
library(arulesViz)
library(datasets)
library(lubridate)
library(tidyverse)
View(Cafe_Great_Transaction_Data_set_1)
str(Cafe_Great_Transaction_Data_set_1)
summary(Cafe_Great_Transaction_Data_set_1)
class(Cafe_Great_Transaction_Data_set_1)
mydata <- (Cafe_Great_Transaction_Data_set_1)
View(mydata)
head(mydata, n = 7500)
mydata1 <- data.frame(mydata, Quantity = factor('Quantity'), Rate = factor('Rate'), Tax =
factor('Tax'), Discount = factor('Discount'), Total = factor('Total'))
View(mydata1)
class(mydata$Quantity)
mydata$Quantity = discretize(mydata$Quantity, method = "frequency", 1)
mydata$Rate = discretize(mydata$Rate, method = "frequency", 1)
mydata$Tax = discretize(mydata$Tax, method = "frequency", 1)
mydata$Discount = discretize(mydata$Discount, method = "frequency", 1)
mydata$Total = discretize(mydata$Total, method = "frequency", 1)
mydata1 <- split(mydata$`Item Desc`, mydata$`Bill Number`)
tData <- as (mydata1, "transactions")
summary(tData)
View(tData)
itemFrequency(tData, type = "relative")
itemFrequencyPlot(tData,topN = 10)
# aggregated data
rules = apriori(tData, parameter=list(support=0.005, confidence=0.1))
rules = apriori(tData, parameter=list(support=0.005, confidence=0.1, minlen = 3))
rules = apriori(tData, parameter=list(support=0.005, confidence=0.1, maxlen = 4))
summary(rules)
inspect(rules[1:3])
rules<-sort(rules, by="confidence", decreasing = TRUE)
rules
inspect(rules[1:3])
mydata1$Time <- as.factor(mydata1$Time)
a <- hms(as.character(mydata1$Time))
mydata1$Time = hour(a)
 mydata%>%
  ggplot(aes(x=Time)) +
  geom_histogram(stat="count",fill="green")
 tmp <- mydata %>%
   group_by(`Bill Number`, `Item Desc`) %>%
```

```
  summarize(Category= n()) %>%
  arrange(desc(Category))
tmp %>%
  ggplot(aes(x=reorder(`Bill Number`, Category), y=`Item Desc`))+
  geom_bar(stat="identity",fill="indian red")+
  coord_flip()
mydata_sorted <- mydata[order(mydata$`Bill Number`)]
library(plyr)
library(dplyr)
itemList <- ddply(mydata,c("Bill Number","Date"),
                  function(df1)paste(mydata$`Item Desc`
                                     collapse = ","))
topRules <- rules[1:3]
plot(topRules)
plot(topRules, method="graph")
plot(topRules, method = "grouped")
```