**10. ARM**

import pandas as pd

import numpy as np

from mlxtend.frequent\_patterns import apriori, association\_rules

df = pd.read\_csv('../input/supermarket/GroceryStoreDataSet.csv', names = ['products'], sep = ',')

df.head()

df.shape

data = list(df["products"].apply(lambda x:x.split(",") ))

data

#Let's transform the list, with one-hot encoding

from mlxtend.preprocessing import TransactionEncoder

a = TransactionEncoder()

a\_data = a.fit(data).transform(data)

df = pd.DataFrame(a\_data,columns=a.columns\_)

df = df.replace(False,0)

df

***Applying Apriori and Resulting***

*The next step is to create the Apriori Model. We can change all the parameters in the Apriori Model in the mlxtend package.  
I will try to use minimum support parameters for this modeling.  
For this, I set a min\_support value with a threshold value of 20% and printed them on the screen as well.*

#set a threshold value for the support value and calculate the support value.

df = apriori(df, min\_support = 0.2, use\_colnames = True, verbose = 1)

df

#Let's view our interpretation values using the Associan rule function.

df\_ar = association\_rules(df, metric = "confidence", min\_threshold = 0.6)

df\_ar