**# Implement Apriori algorithm to extract association rule of datamining**

import numpy as np

import pandas as pd

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

df = pd.read\_csv(r"C:\Users\dcspc\OneDrive\Desktop\Lena.csv")

df.head()

df['Description']=df['Description'].str.strip()

df.dropna(axis=0,subset=['InvoiceNo'],inplace=True)

df['InvoiceNo']=df['InvoiceNo'].astype('str')

df=df[~df['InvoiceNo'].str.contains('C')]

df

basket=(df[df['Country']=="uk"]

.groupby(['InvoiceNo','Description'])['Quantity']

.sum().unstack().reset\_index().fillna(0)

.set\_index('InvoiceNo'))

basket

def encode(x):

if x<=0:

return 0

if x>=1:

return 1

bs=basket.applymap(encode)

f=apriori(bs,min\_support=0.07,use\_colnames=True)

rules=association\_rules(f,metric="lift",min\_threshold=1)

rules.head(10)

OUTPUT:

