import numpy as np  
import pandas as pd  
  
import os

for dirname, \_, filenames in os.walk('/kaggle/input'):

for filename in filenames:

print(os.path.join(dirname, filename))  
  
!pip install mlxtend  
  
import csv

from mlxtend.preprocessing import TransactionEncoder

from mlxtend.frequent\_patterns import apriori, association\_rules  
  
  
data = []

with open('../input/market-basket-optimization/Market\_Basket\_Optimisation.csv') as file:

reader = csv.reader(file, delimiter=',')

for row in reader:

data +=[row]  
  
  
data[1:10] #list of list  
  
len(data)  
  
  
te = TransactionEncoder()

x = te.fit\_transform(data)  
  
  
x  
  
te.columns\_  
  
df = pd.DataFrame(x, columns=te.columns\_)  
  
df  
  
freq\_itemset = apriori(df, min\_support=0.01, use\_colnames=True)|  
  
freq\_itemset  
  
#Find the rules

rules = association\_rules(freq\_itemset, metric='confidence', min\_threshold=0.10)  
  
  
rules = rules[['antecedents','consequents','support','confidence']]

rules  
  
  
rules[rules['antecedents'] == {'cake'}]['consequents']