import numpy as np

import matplotlib.pyplot as plt

import pandas as pd

from apyori import apriori

data = pd.read\_csv('dataset.csv')

head = data.head()

data = data.drop(['month', 'block', 'flat\_model','street\_name','storey\_range','floor\_area\_sqm', 'lease\_commence\_date', 'remaining\_lease', 'resale\_price'], axis=1)

print(data)

records = []

for i in range(0, 103834):

records.append([str(data.values[i,j]) for j in range(0, 2)])

# [["ang mo kio", "3 room"], ["bukit batok", '2 room']]

association\_rules = apriori(records, min\_support=0.01, min\_confidence=0.4, min\_lift=1.8, min\_length=2)

association\_results = list(association\_rules)

print (association\_results)

# print(association\_rules[0])

# association\_results.sort(key=confidence)

for item in association\_results:

# first index of the inner list

# Contains base item and add item

pair = item[0]

print("pair", pair)

items = [x for x in pair]

print("Rule: " + items[0] + " -> " + items[1])

#second index of the inner list

print("Support: " + str(item[1]))

#third index of the list located at 0th

#of the third index of the inner list

print("Confidence: " + str(item[2][0][2]))

print("Lift: " + str(item[2][0][3]))

print("=====================================")