**Python Implementation of Apriori Algorithm**

* **Data Pre-processing**
* **Training the Apriori model on the dataset**
* **Visualizing the results**

**Importing the libraries:**

Before importing the libraries, we will use the below line of code to install the ***apyori package***

 import numpy as nm

 import matplotlib.pyplot as mtp

 import pandas as pd

1. **Importing the dataset:**  
   Now, we will import the dataset for our apriori model. To import the dataset, there will be some changes here. All the rows of the dataset are showing different transactions made by the customers. The first row is the transaction done by the first customer, which means there is no particular name for each column and have their own individual value or product details(See the dataset given below after the code). So, we need to mention here in our code that there is no header specified. The code is given below:

#Importing the dataset

Example:

dataset = pd.read\_csv('Market\_Basket\_data1.csv')

### Training the Apriori Model on the dataset

### To train the model, we will use the **apriori function** that will be imported from the **apyroi** package. This function will return the **rules** to train the model on the dataset.

Example

from apyori import apriori

rules= apriori(transactions= transactions, min\_support=0.003, min\_confidence = 0.2, min\_lift=3, min\_length=2, max\_length=4)

In the above code, the first line is to import the apriori function. In the second line, the apriori function returns the output as the rules. It takes the following parameters:

* **transactions**: A list of transactions.
* **min\_support**= To set the minimum support float value. Here we have used 0.003 that is calculated by taking 3 transactions per customer each week to the total number of transactions.
* **min\_confidence**: To set the minimum confidence value. Here we have taken 0.2. It can be changed as per the business problem.
* **min\_lift**= To set the minimum lift value.
* **min\_length**= It takes the minimum number of products for the association.
* **max\_length** = It takes the maximum number of products for the association.

**3. Visualizing the result**

Now we will visualize the output for our apriori model. Here we will follow some more steps, which are given below:

* **Displaying the result of the rules occurred from the apriori function**

Example:

results= list(rules)