

1) Eclat

```
transactions = [ ['beer', 'wine', 'cheese'], .....]  
import pandas as pd  
data = pd.DataFrame(transactions)  
data  
  
min_n_products = 2  
min_support = 7/len(transactions)  
max_length = max([len(x) for x in transactions])  
  
from pyECLAT import ECLAT  
my_eclat = ECLAT(data=data, verbose=True)  
rule_indices, rule_supports = my_eclat.fit(min_support=min_support,  
                                           min_combination=min_n_products,  
                                           max_combination=max_length)  
  
print(rule_supports)
```

2) Apriori

```
import pandas as pd  
dataset = [['A','C','D'], .....]  
from mlxtend.preprocessing import TransactionEncoder  
dst = TransactionEncoder()    # object from TransactionEncoder  
  
dst_ary = dst.fit(dataset).transform(dataset) # Fit data after Encoder  
df = pd.DataFrame(dst_ary,columns = dst.columns_) # Make dataset in  
Data Frame  
print(df.head())  
  
from mlxtend.frequent_patterns import apriori  
frequent_items = apriori (df=df , min_support=.6 ,use_colnames = True )  
  
print(frequent_items)
```

3) Fpgrowth

```
import pandas as pd
from mlxtend.preprocessing import TransactionEncoder

dst = TransactionEncoder()
dst_ary = dst.fit(dataset).transform(dataset)
df = pd.DataFrame(dst_ary, columns = dst.columns_)
print(df.head())

from mlxtend.frequent_patterns import fpgrowth
frequent_items = fpgrowth(df=df, min_support=.6, use_colnames=True)

print(frequent_items)
```

APriori algorithm.

Association algorithm Part 3 analysis

(3 items are 2 size of the set)

Database:-

ID	Items
10	A, C, D
20	B, C, E
30	A, B, C, E
40	B, E

min sup = 2
min sup 1, A, B, C, E *
30% (30/100) T - 1, 2, 8)
(30/100 * 8) = 2.4 ~ 2

CPDPT

Item Set	SUP
{A}	2
{B}	3
{C}	3
{D}	1
{E}	3

L1 →

A	2
B	3
C	3
E	3

C2

AB	1
AC	2
AE	1
BC	2
BE	3
CE	2

L2 →

AC	2
BC	2
BE	3
CE	2

C3

BC	2
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install jai gharid aplo uj de
ap yori ← Package

pip install ap yori

Step 1:- import the libraries

Step 2:- Load the dataset

Step 3:- Look at the shape

5)