Lab Exercise – 8: Functions related to Apriori Algorithm

NOTE:

* Prepare a PDF document and name the file as "Lab8_RegisterNo.pdf".
* PDF file should consist Question No, Code, and Result for each Question.
* File Should be headed with your Register number, Slot number, Lab Exercise number.

1. Develop a python function to return count of each set in the list of element sets.

Input: Key: (a,b,c), Data: [[a,b,c,d],[b,c,d],[b,c,d,e],[a,b,c,d,e]]
Output: (a,b,c) --> 2

2. Develop a python function to perform self-join operation on a set of items (of size k) to yield unique set of items of size(k+1).

Input:((a,b),(a,c),(b,c),(b,d),(c,d),(c,e),(c,f))
Output:((a,b,c),(b,c,d),(c,d,e),(c,d,f),(c,e,f))

Note: It should not generate (c,d,e,f) since given k=2. we should generate sets of k=3 but not k=4.

3. Develop a python function to generate nonempty subsets for a given list of items.

Input:[a,b,c]
Ouput:[(a),(b),(c),(a,b),(a,c),(b,c)]

4. Use mlxtend/apyori package to apply Apriori algorithm on following transactions:

(("a","b","c"), ("a","b"), ("a","b","d"), ("b","e"), ("b","c","e"), ("a","d","e"), ("a","c"), ("a","b","d"), ("c","e"), ("a","b","d","e"), ("a",'b','e','c'))