

Assignment 1:

Q1) Use the below transactional dataset with support threshold $s=2$ and confidence threshold $c=60\%$ to do the following: (3 marks)

TID	Items
T1	HotDogs, Buns, Ketchup
T2	HotDogs, Buns
T3	HotDogs, Coke, Chips
T4	Chips, Coke
T5	Chips, Ketchup
T6	HotDogs, Coke, Chips

Pass (k)	Candidate k-itemsets and their support	Frequent k-itemsets
k=1		
k=2		
K=3		

A) Use the Apriori algorithm to show the candidates and frequent itemsets for each database scan

B) Based on the above frequent pattern, give example for three association rule? and what support and confidence for each rule?

Q2) Construct of the FP tree. for the following transactional DB.(Hence, min_support = 2.) (2 marks)

Transaction ID	List of items in the transaction
T1	B , A , T
T2	A , C
T3	A , S
T4	B , A , C
T5	B , S
T6	A , S
T7	B , S
T8	B , A , S , T
T9	B , A , S

