SEMESTER LABORATORY EXAMINATION

U18CSI6203L-DATA WAREHOUSING AND DATA MINING

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SIVARAM BS

18BCS201

1.Download a suitable dataset for association from any Repository. List the attributes and its type in a word Doc.

ATTRIBUTE	TYPE
ID OF CUSTOMER	NUMERIC
DATE OF PURCHASE	DATETIME
DESCRIPTION OF PRODUCT PURCHASED	TEXT

2. Implement Python code to apply Apriori algorithm to mine association rules for the given dataset. Use suitable packages and List all the rules with Min_support = 0.6 and Confidence = 0.8 of min_length =2.

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In [19]: association_rules = apriori(records, min_support = 0.005, min_confidence = 0.8, min_lift = 1, min_length = 2)

In [20]: association_results = list(association_rules)

In [21]: print(len(association_results))

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In [22]: print(association_results[0])

RelationRecord(items=frozenset({'nan'}), support=0.8354077956108745, ordered_statistics=[OrderedStatistic(items_base=frozenset
(), items_add=frozenset({'nan'}), confidence=0.8354077956108745, lift=1.0)])

In [23]: for item in association_results:
             pair = item[0]
             items = [x for x in pair]
             print("Rule :"+ str(item[0]) + "->" + str(item[1]))
             print("Support : {}".format(item[1]))
             print("Confidence : {}".format(item[2][0][2]))
             print("Lift : {}".format(item[2][0][3]))
             print("\n--------------------------------------------------\n")

Rule :frozenset({'nan'})->0.8354077956108745
Support : 0.8354077956108745
Confidence : 0.8354077956108745
Lift : 1.0

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Rule :frozenset({'nan', 'canned beer'})->0.07451686865378317
Support : 0.07451686865378317
Confidence : 0.906374501992032
Lift : 1.0849485805064394

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Rule :frozenset({'nan', 'photo/film'})->0.008679986898132984
Support : 0.008679986898132984
Confidence : 0.8833333333333333
Lift : 1.0573678363719532

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3. Upload in your GITHUB account. Provide the link for access.

https://github.com/sivarambs/SEMESTER-LAB.git