**Practical 7: Implementation of apriori algorithm**

import java.io.\*;

class apriori

{

public static void main(String []arg)throws IOException

{

int i,j,m=0;

int t1=0;

BufferedReader b=new BufferedReader(new InputStreamReader(System.in));

System.out.println("Enter the number of transaction :");

int n=Integer.parseInt(b.readLine());

System.out.println("items :1--Milk 2--Bread 3--Coffee 4--Juice 5--Cookies 6--Jam");

int item[][]=new int[n][6];

for(i=0;i<n;i++)

for(j=0;j<6;j++)

item[i][j]=0;

String[] itemlist={"MILK","BREAD","COFFEE","JUICE","COOKIES","JAM"};

int nt[]=new int[6];

int q[]=new int[6];

for(i=0;i<n;i++)

{ System.out.println("Transaction "+(i+1)+" :");

for(j=0;j<6;j++)

{ //System.out.println(itemlist[j]);

System.out.println("Is Item "+itemlist[j]+" present in this transaction(1/0)? :");

item[i][j]=Integer.parseInt(b.readLine());

}

}

for(j=0;j<6;j++)

{ for(i=0;i<n;i++)

{if(item[i][j]==1)

nt[j]=nt[j]+1;

}

System.out.println("Number of Item "+itemlist[j]+" :"+nt[j]);

}

for(j=0;j<6;j++)

{ if(((nt[j]/(float)n)\*100)>=50)

q[j]=1;

else

q[j]=0;

if(q[j]==1)

{t1++;

System.out.println("Item "+itemlist[j]+" is selected ");

}

}

for(j=0;j<6;j++)

{ for(i=0;i<n;i++)

{

if(q[j]==0)

{

item[i][j]=0;

}

}

}

int nt1[][]=new int[6][6];

for(j=0;j<6;j++)

{ for(m=j+1;m<6;m++)

{ for(i=0;i<n;i++)

{ if(item[i][j]==1 &&item[i][m]==1)

{ nt1[j][m]=nt1[j][m]+1;

}

}

if(nt1[j][m]!=0)

System.out.println("Number of Items of "+itemlist[j]+"& "+itemlist[m]+" :"+nt1[j][m]);

}

}

for(j=0;j<6;j++)

{ for(m=j+1;m<6;m++)

{

if(((nt1[j][m]/(float)n)\*100)>=50)

q[j]=1;

else

q[j]=0;

if(q[j]==1)

{

System.out.println("Item "+itemlist[j]+"& "+itemlist[m]+" is selected ");

}

}

}

}

}





