**Worksheet-2.1**

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**Subject Name:- PBLJ Lab**

1. **Aim/ Overview of the practical:-**

Collect and Group Cards

1. **Task To be done :-**

Write a program to collect and store all the cards to assist the users in finding all the cards in a given symbol.

This cards game consist of N number of cards. Get N number of cards details from the user and store the values in Card object with the attributes symbol and number.

Store all the cards in a map with symbol as its key and list of cards as its value. Map is used here to easily group all the cards based on their symbol.

Once all the details are captured print all the distinct symbols in alphabetical order from the Map. For each symbol print all the card details, number of cards and their sum respectively

1. **S/W Requirements:-**

* JVM
* IntelliJIdea

1. **Code :-**

import java.util.\*;

public class cards {

public static void main(String[] args) {

Scanner input = new Scanner(System.in);

List<Integer>valueList = new ArrayList<Integer>();

TreeMap<String, List<Integer>>mapObj= new TreeMap<String, List<Integer>>();

int totalCards, index, value, sum = 0, count = 0;

System.out.println("ENTER NUMBER OF CARDS : ");

totalCards= input.nextInt();

String symbol;

for(index = 1; index <= totalCards; index++) {

System.out.println("ENTER CARD" + " " + index);

symbol = input.next();

value = input.nextInt();

if(mapObj.containsKey(symbol)) {

valueList = mapObj.get(symbol);

valueList.add(value);

} else {

valueList = new ArrayList<Integer>();

valueList.add(value);

mapObj.put(symbol, valueList);

}

}

System.out.println("DISTINCT SYMBOLS ARE :");

for(Map.EntrygetData: mapObj.entrySet()) {

System.out.print(getData.getKey() + " ");

}

System.out.println();

for(Map.EntrygetData: mapObj.entrySet()) {

System.out.println("CARDS IN " + getData.getKey() + " SYMBOL :");

ArrayList<Integer>temp = (ArrayList<Integer>) getData.getValue();

Iterator itr= temp.iterator();

while(itr.hasNext()) {

count++;

int val= (int) itr.next();

System.out.print(getData.getKey());

System.out.println(" " + val);

sum += val;

}

System.out.println("NUMBER OF CARDS : " + count);

System.out.println("SUM OF NUMBERS : " + sum);

sum = 0;

}

}

}

1. **Result/Output/Writing Summary:-**



