**Experiment 2.2**

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**Semester: 6 Date of Performance:27-02-2024**

**Subject Name: Java Lab**

**Subject Code:21CSH-319**

1. **Aim:** Create a program to collect unique symbols from a set of cards using set interface.
2. **Objective:** Playing cards during travel is a fun filled experience. For this game they wanted to collect all fourunique symbols. Can you help these guys to collect unique symbols from a set of cards?Create Card class with attributes symbol and number. From our main method collect each carddetails (symbol and number) from the user.Collect all these cards in a set, since set is used to store unique values or objects.Once we collect all four different symbols display the first occurrence of card details in alphabeticalorder.
3. **Algo. /Approach and output:**

import java.util.HashSet;

import java.util.Scanner;

import java.util.Set;

import java.util.TreeSet;

class Card {

String symbol;

int number;

Card(String symbol, int number) {

this.symbol = symbol;

this.number = number;

}

}

public class cards2 {

public static void main(String[] args) {

collectUniqueSymbols();

}

public static void collectUniqueSymbols() {

Scanner scanner = new Scanner(System.in);

Set<Card> cards = new HashSet<>();

Set<String> symbolsCollected = new HashSet<>();

while (symbolsCollected.size() < 4) {

System.out.println("Enter a card:");

String symbol = scanner.nextLine().trim().toLowerCase();

int number = scanner.nextInt();

scanner.nextLine();

if (!symbolsCollected.contains(symbol)) {

symbolsCollected.add(symbol);

}

cards.add(new Card(symbol, number));

}

System.out.println("Four symbols gathered in " + cards.size() + " cards.");

System.out.println("Cards in Set are:");

Set<Card> sortedCards = new TreeSet<>((c1, c2) -> {

if (!c1.symbol.equals(c2.symbol)) {

return c1.symbol.compareTo(c2.symbol);

}

return Integer.compare(c1.number, c2.number);

});

sortedCards.addAll(cards);

for (Card card : sortedCards) {

System.out.println(card.symbol + " " + card.number);

}

scanner.close();

}

**Output:**

A screenshot of a computer program

Description automatically generated