"Experiment 2.1"

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Subject Name: **PBLJ Lab** Subject Code: **20CSP-321**

Aim:

Playing cards during travel is a fun filled experience. For this game they wanted to collect all four unique 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 card details (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 alphabetical order.

Minimum Hardware Requirements:

- 2 GHz CPU or 1 virtual CPU in virtualized environments.
- 1 GB of RAM.
- 4 GB of storage.

Minimum Software Requirements:

Software	Version
OS	Mac OS 10.15, HP-UX 11i V3, AIX 7.2, Windows Server 2019, Windows 10, Solaris 11.3, Red Hat Enterprise Linux 8.1, Ubuntu Server 20.04
JDK	JDK 1.8.0, JDK 11, Ellipse IDE, Net, NetBeans 8.2

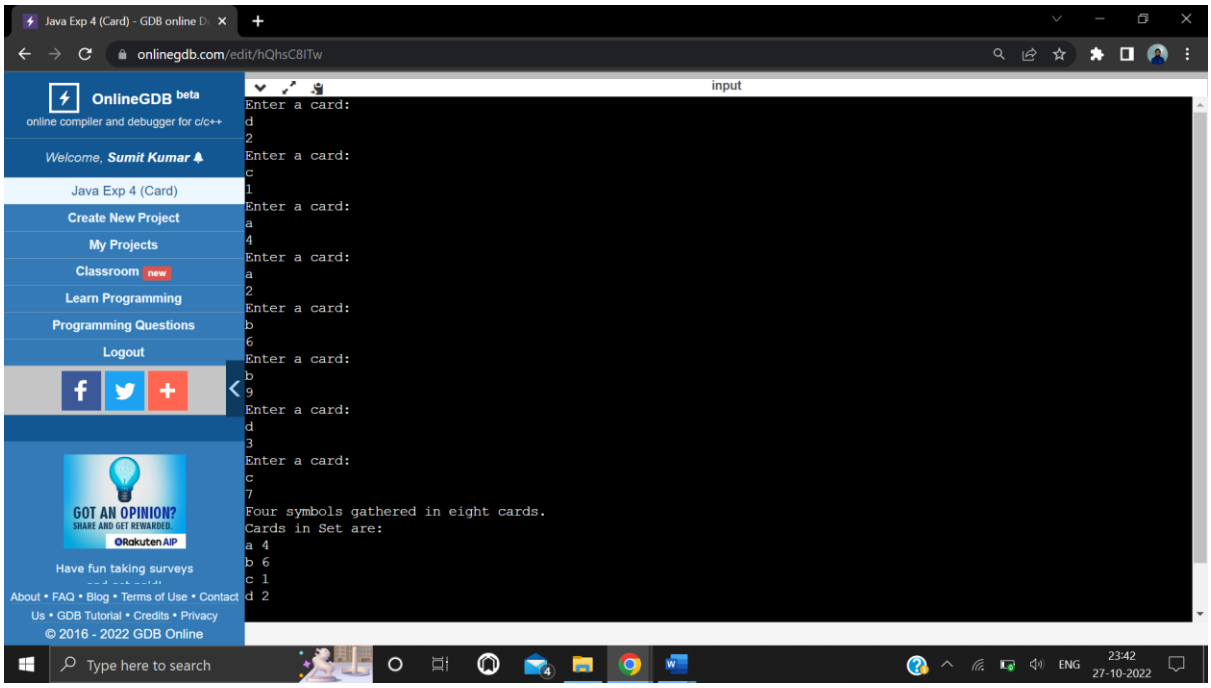
Source Code:

```
import java.util.HashSet;

import java.util.Scanner;

import java.util.Set;

import java.util.TreeSet;


public class Main {

   public static void main(String[] args) {

      Scanner in = new Scanner(System.in);

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

      for (int i = 0; i < 8; i++) {

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

         char c = in.next().charAt(0);

         int n = in.nextInt();

         in.nextLine();

         set.add(new Card(c,n));

      }

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

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

      for (Card card : set)

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

      in.close();

   }

}


class Card implements Comparable<Card> {
```

```
char symbol;
int number;
public Card(char symbol, int number) {
   this.symbol = symbol;
   this.number = number;
}

@Override
public int compareTo(Card o) {
   if (this.symbol < o.symbol) return -1;
   else if (this.symbol > o.symbol) return 1;
   else return 0;
}

@Override
public int hashCode() {
   return String.valueOf(symbol).hashCode();
}

@Override
public boolean equals(Object obj){
   if (obj instanceof Card) {
      Card card = (Card) obj;
      return (card.symbol == this.symbol);
   } else {
      return false;
```

```
    }
  }
}
```

Output:


Java Exp 4 (Card) - GDB online D
onlinegdb.com/edit/hQhsC8lTw
OnlineGDB beta
online compiler and debugger for c/c++
Welcome, Sumit Kumar
Java Exp 4 (Card)
Create New Project
My Projects
Classroom new
Learn Programming
Programming Questions
Logout
GOT AN OPINION?
SHARE AND GET REWARDED
Rakuten AIP
Have fun taking surveys
About • FAQ • Blog • Terms of Use • Contact Us • GDB Tutorial • Credits • Privacy
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input
Enter a card:
d
2
Enter a card:
c
1
Enter a card:
a
4
Enter a card:
a
2
Enter a card:
b
6
Enter a card:
b
9
Enter a card:
d
3
Enter a card:
c
7
Four symbols gathered in eight cards.
Cards in Set are:
a 4
b 6
c 1
d 2
Type here to search
ENG
23:42
27-10-2022