DEPARTMENT OF
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GRADE A+
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Worksheet - 5

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UID – 20BCS2761

BRANCH – CSE BTECH

SEC – WM 902 B

SUB JAVA LAB

1. Aim/Overview of the practical:

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.

2. Code:

```java
import java.util.TreeMap; import
java.util.ArrayList; import
java.util.Map;
import java.util.Scanner;

public class exp5{
        public static void main(String[] args) {

                Map<String, ArrayList<Integer>> t = new TreeMap<>();
                Scanner sc = new Scanner(System.in);

                System.out.println("Enter total no. of elements: ");
```

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```java
 int n = sc.nextInt();   for(int i=0; i<n; i++) {

                    System.out.println("Enter a card:");
                    String s = sc.next();

                    if (!t.containsKey(s)) {
                            t.put(s, new ArrayList<>());
                    }
                    t.get(s).add(sc.nextInt());
            }

 System.out.println(t.size() + " symbols are gathered in " + n + " cards");   System.out.println("Cards in Set are:");

                    for(Map.Entry<String, ArrayList<Integer>> entry:t.entrySet()) {
System.out.println(entry.getKey() + "" + entry.getValue().get(0));
                    }
                    sc.close();
            }
}
```
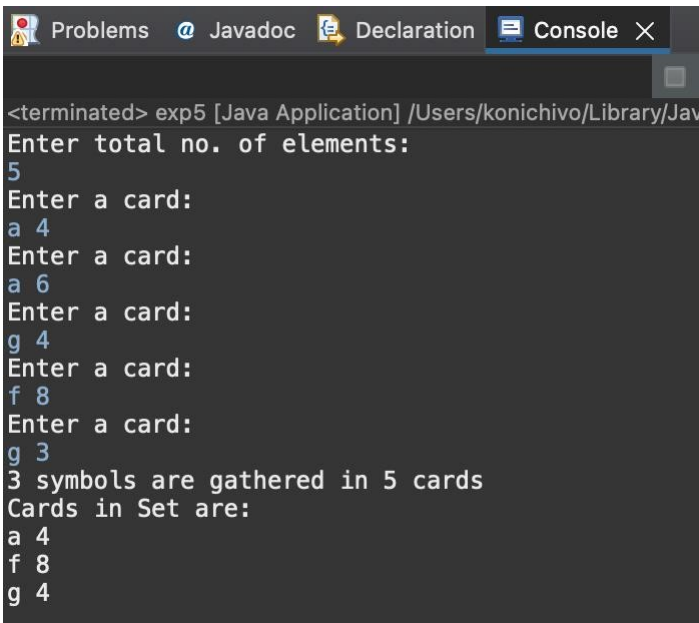
3. Result/Output:

```
Problems   @ Javadoc   Declaration   Console  X

<terminated> exp5 [Java Application] /Users/konichivo/Library/Jav
Enter total no. of elements:
5
Enter a card:
a 4
Enter a card:
a 6
Enter a card:
g 4
Enter a card:
f 8
Enter a card:
g 3
3 symbols are gathered in 5 cards
Cards in Set are:
a 4
f 8
g 4
```

Learning outcomes (What I have learnt):

1.Learnt about the concept of TreeMap and its functions such as put, containKeys, getValue, getKey.

Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			