



CHANDIGARH UNIVERSITY

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UNIVERSITY INSTITUTE OF ENGINEERING

Department of Computer Science & Engineering

Subject Name:

Subject Code: 20CSP 321

Submitted to:

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Submitted by:

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UID:20BCS1812

Section:20BCS_WM-702

Group: A

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Ex. No	List of Experiments	Date	Conduct (MM: 12)	Viva (MM: 10)	Record (MM: 8)	Total (MM: 30)	Remarks/Signature
1.1	Create an application to save the employees information using arrays	16/8/22					
1.2	Design and implement a simple inventory control system for a small video rental store	26/8/22					
1.3	Calculate interest based on the type of the account and the status of the account holder. The rates of interest changes according to the amount (greater than or less than 1 crore), age of account holder (General or Senior citizen) and number of days if the type of account is FD or RD.	6/9/22					
2.1	Create a program to set view of Keys from Java Hashtable.	16/9/22					
2.2	Create a program to show the usage of set of collection interface.	4/10/22					
2.3	Write a program to perform the basic operations like insert delete display and search in list. List contains string object items where the operation are to be performed.	30/9/22					
2.4							
3.1							
3.2							

3.3							
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Experiment 2.2

Student Name:Rajiv Paul

UID:20BCS1812

Branch:CSE

Section/Group:702A

Semester: 5th

Date of Performance: 04/10/2022

Subject Name:PBLJ Lab

Subject Code: 20CSP 321

1. Aim:

To create a program to show the usage of set of collection interface.

2. Requirements:

Software:

IntelliJ IDEA, JDK,MacOs,Netbeans

Hardware:

Macbook(Laptop)

Ram:4GB(Minimum)

Processor: M1

3. Code:

```
package com.PBLJ;
```

```
import java.util.HashSet;
```

```
import java.util.Scanner;
```

```
import java.util.Set;
```

```
class Card implements Comparable<Card> {
```

```
    private char symbol;
```

```
    private int number;
```

```
    public Card() {}
```

```
    public Card(char symbol, int number) {
```

```
        super();
```

```
        this.symbol = symbol;
```

```
        this.number = number;
```

```
    }
```

```
    public char getSymbol() {
```

```

        return symbol;
    }
    public void setSymbol(char symbol) {
        this.symbol = symbol;
    }
    public int getNumber() {
        return number;
    }
    public void setNumber(int number) {
        this.number = number;
    }
    @Override
    public String toString() {
        return "Card [symbol=" + symbol + ", 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 1;
    }

    @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;
        }
    }
}

public class Project5_new {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        Set<Card> set = new HashSet<>();
        for (int i = 0; i < 8; i++) {
            System.out.println("Enter a card:");
            Card card = new Card();

            card.setSymbol(sc.nextLine().charAt(0));
            card.setNumber(sc.nextInt());
            sc.nextLine();
            set.add(card);
        }
    }
}

```

```

        System.out.println("Four symbols gathered in eight cards.");
        System.out.println("Cards in Set are:");
        for (Card card : set)
            System.out.println(card.getSymbol() + " " + card.getNumber());
        sc.close();
    }
}
}

```

4. Output:

```

Enter a card:
a
1
Enter a card:
b
2
Enter a card:
d
7
Enter a card:
r
9
Enter a card:
s
10
Enter a card:
l
2
Enter a card:
c
4
Enter a card:
c
4
Four symbols gathered in eight cards.
Cards in Set are:
a 1
b 2
r 9
s 10
c 4
d 7
l 2

```

Learning outcomes (What I have learnt):

- 1.** Learnt about Collection .
- 2.** Learnt how to implement Collections .
- 3.** Learnt about HashSet.
- 4.** Leant how to implement HashSet and its methods.