

### Thursday Lab 3

#### 1. Find the frequency of a number in the given arraylist.

```
package lucky.in;

import java.util.*;

public class Frqn {

    public static void main(String[] args) {

        int i,k;

        ArrayList<Integer> a1 = new <Integer> ArrayList();

        Scanner sc = new Scanner(System.in);

        System.out.println("E"

            + "nter number of elements: ");

        k = sc.nextInt();

        for(i=0;i<=k;i++) {

            System.out.println("Enter "+i+" "

                + "element :");

            a1.add(sc.nextInt());

        }

        System.out.println("Enter element for searching duplicate: ");

        int n= sc.nextInt();

        int freq =0;

        int value;

        for(i=0;i<=k;i++) {

            Object c =a1.get(i);

            value = (int)c;

            if(value==n) {

                freq++;

                System.out.print("element "+n+" is repeated "+freq);

            }

        }

    }

}
```

**Output:**

Enter number of elements:

5

Enter 0 element :

4

Enter 1 element :

2

Enter 2 element :

5

Enter 3 element :

2

Enter 4 element :

6

Enter 5 element :

8

Enter element for searching duplicate:

2

element 2 is repeated 1element 2 is repeated 2

**2. Write a program to read book details like Id, Author, Title, price using vector.**

package lucky.in;

public class Book {

    public String id;

    public String title,author;

    public Book(String roll,String tit,String a) {

        id=roll;

        title=tit;

        author=a;

    }

```

}

package lucky.in;

import java.util.*;

public class Vector_implementation {

    public static void main(String[] args) {

        // TODO Auto-generated method stub

        Book obj[] = new Book[5];

        obj[0]= new Book("1","java programming", "james");
        obj[1]= new Book("2","C progrmming", "Dennis");
        obj[2]= new Book("3","Mysql ", "william");
        obj[3]= new Book("4","AI", "Jegan");
        obj[4]= new Book("5","java programming", "Gosling");


        Vector<Book> v = new Vector<Book>();

        v.add(obj[0]);
        v.add(obj[1]);
        v.add(obj[2]);
        v.add(obj[3]);
        v.add(obj[4]);

        for(Book b : v) {

            System.out.println(b.id + " " + b.title + " " + b.author );

        }

    }
}

```

**Output:**

1 java programming james

2 C programming Dennis

3 Mysql william

4 AI Jegan

5 java programming Gosling

**Program 3:**

```
package Collections.test;
```

```
import java.util.*;
```

```
public class Table1 {
```

```
    public static void main(String[] args) {
```

```
        // TODO Auto-generated method stub
```

```
        Hashtable ht = new Hashtable();
```

```
        ht.put("Alice in Wonderland", "Historic");
```

```
        ht.put("To Kill a Mockingbird", "Crime");
```

```
        ht.put("Brave New World", "Thriller");
```

```
        ht.put("The Sun Also Rises", "Historic");
```

```
        ht.put("The Grapes of Wrath", "comic");
```

```
        ht.put("Ramayan", "Devotion");
```

```
        ht.put("Khuraan", "Bhakth");
```

```
        Enumeration keys = ht.keys();
```

```
        while(keys.hasMoreElements()) {
```

```
            String key = (String)keys.nextElement();
```

```
            Object val= ht.get(key);
```

```
            System.out.println(key+"="+val);
```

}

}

}

**Output:**

*Khuraan=Bhakth*

*Ramayan=Devotion*

*To Kill a Mockingbird=Crime*

*Alice in Wonderland=Historic*

*Brave New World=Thriller*

*The Sun Also Rises=Historic*

*The Grapes of Wrath=comic*