

## **LAB CYCLE-2**

### **1.Program to Sort strings.**

#### **CODE:**

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

public class sortuserstrings {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.println("Name : Anna Jose");
        System.out.println("Register Number : SJC22MCA-2008");
        System.out.println("Course Name : Object Oriented Programming Lab");
        System.out.println("Course Code : 20MCA132");
        System.out.println("Date : 04/04/2023");
        System.out.print("Enter the number of strings you want to sort: ");
        int n = input.nextInt();
        String[] names = new String[n];

        System.out.println("Enter the strings to be sorted:");
        for (int i = 0; i < n; i++) {
            names[i] = input.next();
        }

        Arrays.sort(names);

        System.out.println("Sorted Names: ");
        for (String name : names) {
            System.out.println(name);
        }
    }
}
```

**OUTPUT:**

```
(base) sjcet@Z238-UL:~/anna08/S2/java/co2$ javac sortuserstrings.java
(base) sjcet@Z238-UL:~/anna08/S2/java/co2$ java sortuserstrings
Name : Anna Jose
Register Number : SJC22MCA-2008
Course Name : Object Oriented Programming Lab
Course Code : 20MCA132
Date : 04/04/2023
Enter the number of strings you want to sort: 3
Enter the strings to be sorted:
anna
joann
jude
Sorted Names:
anna
joann
jude
```

---

**2.Search an element in an array.****CODE:**

```
import java.util.*;
class Array
{
public static void main(String args[])
{
System.out.println("Name : Anna Jose");
System.out.println("Register Number : SJC22MCA-2008");
System.out.println("Course Name : Object Oriented Programming Lab");
System.out.println("Course Code : 20MCA132");
System.out.println("Date : 04/04/2023");
Scanner sc=new Scanner(System.in);
int i,n,s,flag=0;
System.out.println("enter the number of elements :");
n=sc.nextInt();
int [] a=new int[n];
System.out.println("enter the elements");
for(i=0;i<n;i++)
{
a[i]=sc.nextInt();
}
System.out.println("enter the element to be searched:");
s=sc.nextInt();
for(i=0;i<n;i++)
{
if(a[i]==s)
{
System.out.println("Element " + s + "found at " + i + " position");
flag=1;
break;
}
}
if(flag==0)
{
System.out.println("Element not found");
}
}
```

```
}  
}
```

**OUTPUT:**

---

```
(base) sjcet@Z238-UL:~/anna08/S2/java/co2$ javac Array.java  
(base) sjcet@Z238-UL:~/anna08/S2/java/co2$ java Array  
Name : Anna Jose  
Register Number : SJC22MCA-2008  
Course Name : Object Oriented Programming Lab  
Course Code : 20MCA132  
Date : 04/04/2023  
enter the number of elements :  
5  
enter the elements  
1  
2  
3  
4  
5  
enter the element to be searched:  
5  
Element 5 found at 4 position
```

---

### 3.Perform string manipulations .

#### CODE:

```
import java.util.Scanner;
public class String_man{
    public static void main(String[] args) {
        System.out.println("Name : Anna Jose");
        System.out.println("Register Number : SJC22MCA-2008");
        System.out.println("Course Name : Object Oriented Programming Lab");
        System.out.println("Course Code : 20MCA132");
        System.out.println("Date : 29/04/2023");
        System.out.println("Enter The String");
        Scanner sc = new Scanner(System.in);
        String str1 = sc.nextLine();
        System.out.println("Length of String = "+str1.length());
        System.out.println("Character at First position = "+str1.charAt(1));
        System.out.println("String Contains 'Col' sequence :"+str1.contains("Col"));
        System.out.println("String ends with e : "+str1.endsWith("e"));
        System.out.println("Replace'col' with 'kol' : "+str1.replaceAll("Col","kol"));
        System.out.println("LOWERCASE : "+str1.toLowerCase());
        System.out.println("UPPERCASE : "+str1.toUpperCase());
    }
}
```

#### OUTPUT:

```
(base) sjcet@Z238-UL:~/anna08/S2/java/co2$ javac String_man.java
(base) sjcet@Z238-UL:~/anna08/S2/java/co2$ java String_man
Name : Anna Jose
Register Number : SJC22MCA-2008
Course Name : Object Oriented Programming Lab
Course Code : 20MCA132
Date : 29/04/2023
Enter The String
anna jose
Length of String = 9
Character at First position = n
String Contains 'Col' sequence :false
String ends with e : true
Replace'col' with 'kol' : anna jose
LOWERCASE : anna jose
UPPERCASE : ANNA JOSE
```

---

**4.Program to create a class for Employee having attributes eNo, eName eSalary. Read n employ information and Search for an employee given eNo, using the concept of Array of Objects.**

**CODE:**

```
import java.util.Scanner;
public class employee {
    int eNo;
    String eName;
    double eSalary;
    public void getdetails(){
        System.out.println("\nEnter the Employee details");
        Scanner sc = new Scanner(System.in);
        System.out.println("Employee number : ");
        eNo=sc.nextInt();
        System.out.println("Name : ");
        sc.nextLine();
        eName=sc.nextLine();
        System.out.println("Salary : ");
        eSalary=sc.nextDouble();
    }
    void display(){
        System.out.println("Empolyee No :"+eNo);
        System.out.println("Name :"+eName);
        System.out.println("Salary Amount"+eSalary+"\n");
    }
    public static void main(String[] args) {
        System.out.println("Name : Anna Jose");
        System.out.println("Register Number : SJC22MCA-2008");
        System.out.println("Course Name : Object Oriented Programming Lab");
        System.out.println("Course Code : 20MCA132");
        System.out.println("Date : 04/04/2023");
        System.out.println("\nEnter the No. of Employee's");
        Scanner sc1 = new Scanner(System.in);
        int num = sc1.nextInt();
        employee arr[]=new employee[num];
        for(int i =0;i<num;i++){
            arr[i]=new employee();
        }
    }
}
```

```
        arr[i].getdetails();

    }
    System.out.println("\nInformations of all the employee's");
    for(int i=0;i<num;i++){
        arr[i].display();
    }
    boolean state = false;
    System.out.println("\nEnter the Employee Number to get details of a employee");
    int num2= sc1.nextInt();
    for(int i=0;i<num;i++){
        if(arr[i].eNo==num2){
            System.out.println("\nEmployee details");
            arr[i].display();
        }
    }
}
}
```

**OUTPUT:**

```
(base) sjcet@Z238-UL:~/anna08/S2/java/co2$ javac employee.java
```

```
(base) sjcet@Z238-UL:~/anna08/S2/java/co2$ java employee
```

```
Name : Anna Jose
```

```
Register Number : SJC22MCA-2008
```

```
Course Name : Object Oriented Programming Lab
```

```
Course Code : 20MCA132
```

```
Date : 04/04/2023
```

```
Enter the No. of Employee's
```

```
3
```

```
Enter the Employee details
```

```
Employee number :
```

```
001
```

```
Name :
```

```
anna
```

```
Salary :
```

```
20000
```

```
Enter the Employee details
```

```
Employee number :
```

```
002
```

```
Name :
```

```
joann
```

```
Salary :
```

```
40000
```

```
Enter the Employee details
```

```
Employee number :
```

```
003
```

```
Name :
```

```
jude
```

```
Salary :
```

```
80000
```

```
Informations of all the employee's
```

```
Empolyee No :1
```

```
Name :anna
```

```
Salary Amount20000.0
```

```
Empolyee No :2
```

```
Name :joann
```

```
Salary Amount40000.0
```



Empolyee No :3  
Name :jude  
Salary Amount80000.0

Enter the Employee Number to get details of a employee  
003

Employee details  
Empolyee No :3  
Name :jude  
Salary Amount80000.0