

OBJECT ORIENTED PROGRAMMING LAB**Experiment No: 10****Aim**

Perform string manipulations.

Procedure

```
import java.util.*;
class StringManip
{
    String s1;
    String s2;
    int len;
    Scanner sc=new Scanner(System.in);
    String concat_string(String str1,String str2)
    {
        return str1.concat(str2);
    }
    int countLength(String str1)
    {
        return str1.length();
    }
    String caseConvert(String str1)
    {
        if(str1.equals(str1.toUpperCase()))
            return str1.toLowerCase();
        else
            return str1.toUpperCase();
    }
    String replaceSubstring(String str1,String str2,String str3)
    {
        return str1.replace(str3,str2);
    }
    String sortString(String str1)
    {
        char[] a=new char[str1.length()];
        a=str1.toCharArray();
        Arrays.sort(a);
        str1=new String(a);
        return str1;
    }
    int returnCharPos(String str1,char ch)
    {
        return str1.indexOf(ch);
    }
}
public class StringManipulation
```

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```

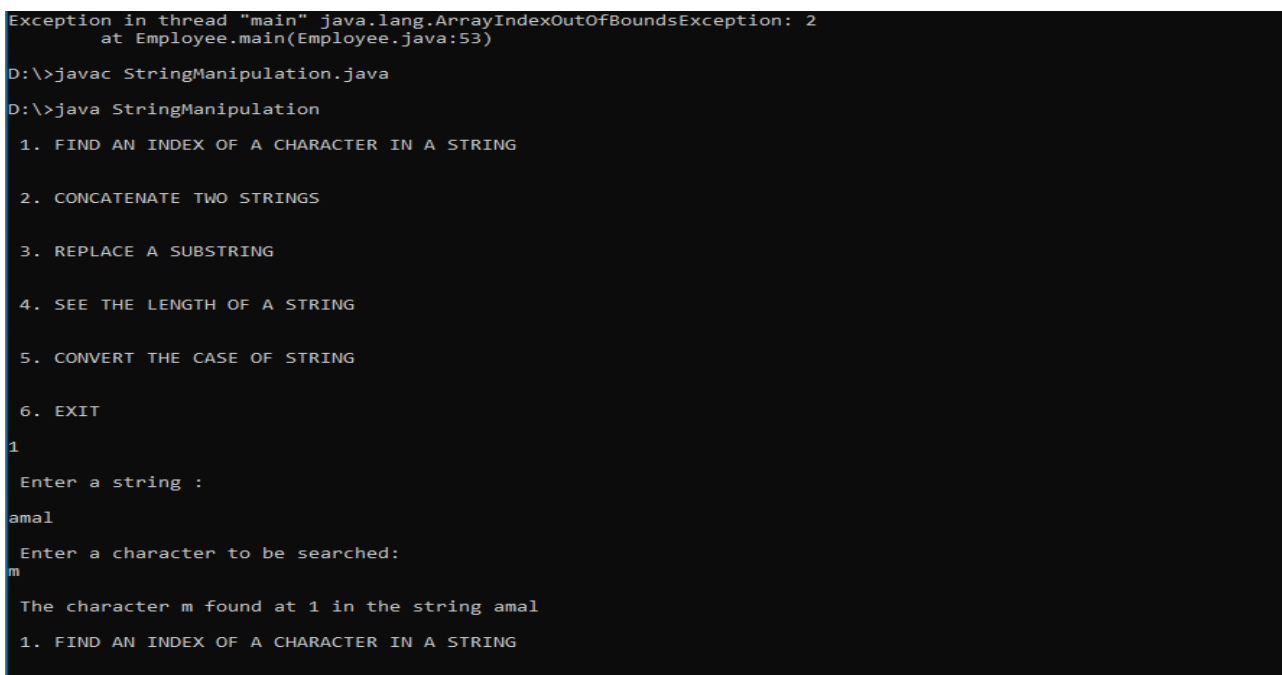
{
    public static void main(String args[])
    {
        StringManip ob=new StringManip();
        int opt;
        String str1,str2,str3;
        char ch;
        Scanner sc=new Scanner(System.in);
        do
        {
            System.out.println("\n 1. FIND AN INDEX OF A CHARACTER IN A STRING\n");
            System.out.println("\n 2. CONCATENATE TWO STRINGS\n");
            System.out.println("\n 3. REPLACE A SUBSTRING\n");
            System.out.println("\n 4. SEE THE LENGTH OF A STRING\n");
            System.out.println("\n 5. CONVERT THE CASE OF STRING\n");
            System.out.println("\n 6. EXIT\n");
            opt=sc.nextInt();
            switch(opt)
            {
                case 1: sc.nextLine();
                    System.out.println("\n Enter a string : \n");
                    str1=sc.nextLine();
                    System.out.println("\n Enter a character to be searched: ");
                    ch=sc.next().charAt(0);
                    System.out.println("\n The character "+ch+" found at "+ob.returnCharPos(str1,ch)+" in the
string "+str1);
                    break;
                case 2: sc.nextLine();
                    System.out.println("\n Enter string 1: \n");
                    str1=sc.nextLine();
                    System.out.println("\n Enter string 2: \n");
                    str2=sc.nextLine();
                    System.out.println("\n After concatenating the above string, we get
"+ob.concat_string(str1,str2));
                    break;
                case 3: sc.nextLine();
                    System.out.println("\n Enter a string : ");
                    str1=sc.nextLine();
                    System.out.println("\n Enter a word: ");
                    str2=sc.nextLine();
                    System.out.println("\n Enter a substring : ");
                    str3=sc.nextLine();
                    if(str1.contains(str3))
                        System.out.println("\n Replacing "+str3+" with the word "+str2+" and the result is :
"+ob.replaceSubstring(str1,str2,str3));
                    else
                        System.out.println("\n Substring do not match !!!\n");
                    break;
                case 4: sc.nextLine();
                    System.out.println("\n Enter a string : ");
                    str1=sc.nextLine();
                    System.out.println("\n The length of the string is : "+ob.countLength(str1));
                    break;
                case 5: sc.nextLine();
                    System.out.println("\n Enter a string to be converted: (Enter either in capital or not)");

```

```
        str2=sc.nextLine();
        if(str2.equals(str2.toUpperCase())==false && str2.equals(str2.toLowerCase())==false)
            System.out.println("\n Enter in correct format\n");
        System.out.println("\n The converted string is : "+ob.caseConvert(str2));
        break;
    case 6: System.exit(0);

    default: System.out.println("\n INVALID CHOICE !!!\n");
    }
}
while(opt!=6);
}
```

Output Screenshot



```
Exception in thread "main" java.lang.ArrayIndexOutOfBoundsException: 2
    at Employee.main(Employee.java:53)
D:\>javac StringManipulation.java
D:\>java StringManipulation
1. FIND AN INDEX OF A CHARACTER IN A STRING
2. CONCATENATE TWO STRINGS
3. REPLACE A SUBSTRING
4. SEE THE LENGTH OF A STRING
5. CONVERT THE CASE OF STRING
6. EXIT
1
Enter a string :
amal
Enter a character to be searched:
m
The character m found at 1 in the string amal
1. FIND AN INDEX OF A CHARACTER IN A STRING
```