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BATCH-5(AI&ML)

## EXPERIMENT NO– 8

TITLE: String handling

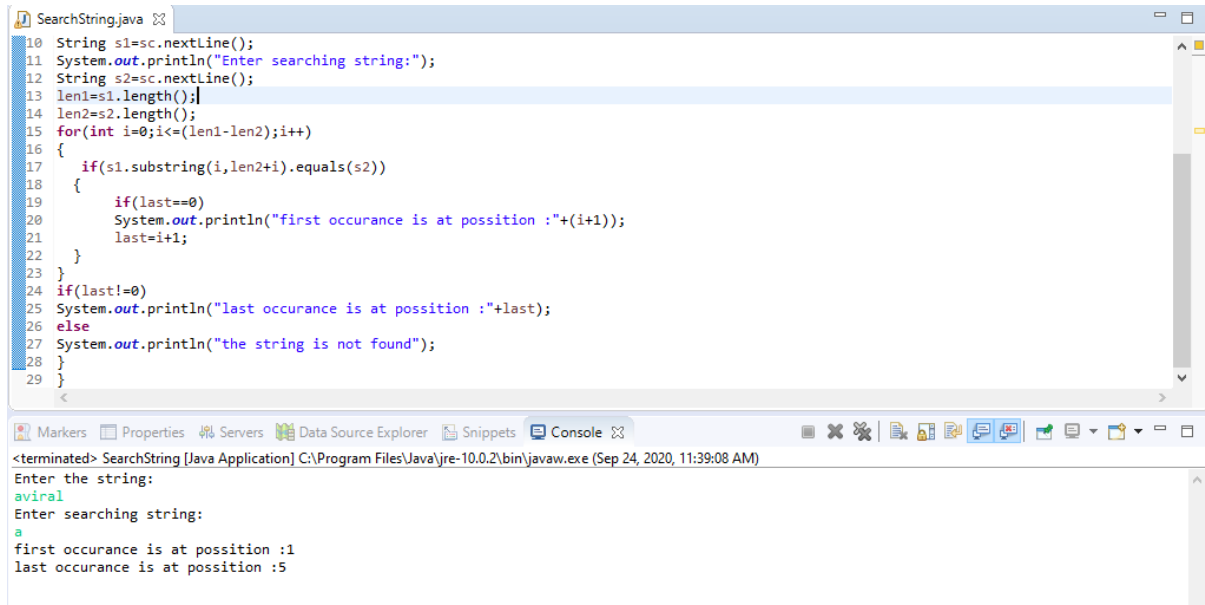
1. Write a program for searching strings for the first occurrence of a character or substring and for the last occurrence of a character or substring.

### CODE

```
package rohan;
import java.util.*;
class SearchString
{
    public static void main(String args[])
    {
        int len1,len2,last=0;
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the string:");
        String s1=sc.nextLine();
        System.out.println("Enter searching string:");
        String s2=sc.nextLine();
        len1=s1.length();
        len2=s2.length();
        for(int i=0;i<=(len1-len2);i++)
        {
            if(s1.substring(i,len2+i).equals(s2))
            {
                if(last==0)
                    System.out.println("first occurance is at possition :"+(i+1));
                last=i+1;
            }
        }
        if(last!=0)
            System.out.println("last occurance is at possition :"+last);
        else
            System.out.println("the string is not found");
    }
}
```

```
}  
}  
}
```

## OUTPUT



The screenshot shows an IDE window titled "SearchString.java". The code in the editor is as follows:

```
10 String s1=sc.nextLine();  
11 System.out.println("Enter searching string:");  
12 String s2=sc.nextLine();  
13 len1=s1.length();  
14 len2=s2.length();  
15 for(int i=0;i<=(len1-len2);i++)  
16 {  
17     if(s1.substring(i,len2+i).equals(s2))  
18     {  
19         if(last==0)  
20             System.out.println("first occurance is at possition :"+(i+1));  
21         last=i+1;  
22     }  
23 }  
24 if(last!=0)  
25 System.out.println("last occurance is at possition :"+last);  
26 else  
27 System.out.println("the string is not found");  
28 }  
29 }
```

The console output at the bottom shows the following interaction:

```
<terminated> SearchString [Java Application] C:\Program Files\Java\jre-10.0.2\bin\javaw.exe (Sep 24, 2020, 11:39:08 AM)  
Enter the string:  
aviral  
Enter searching string:  
a  
first occurance is at possition :1  
last occurance is at possition :5
```

**2. Write a program that converts all characters of a string in capital letters. (Use StringBuffer to store a string). Don't use inbuilt function.**

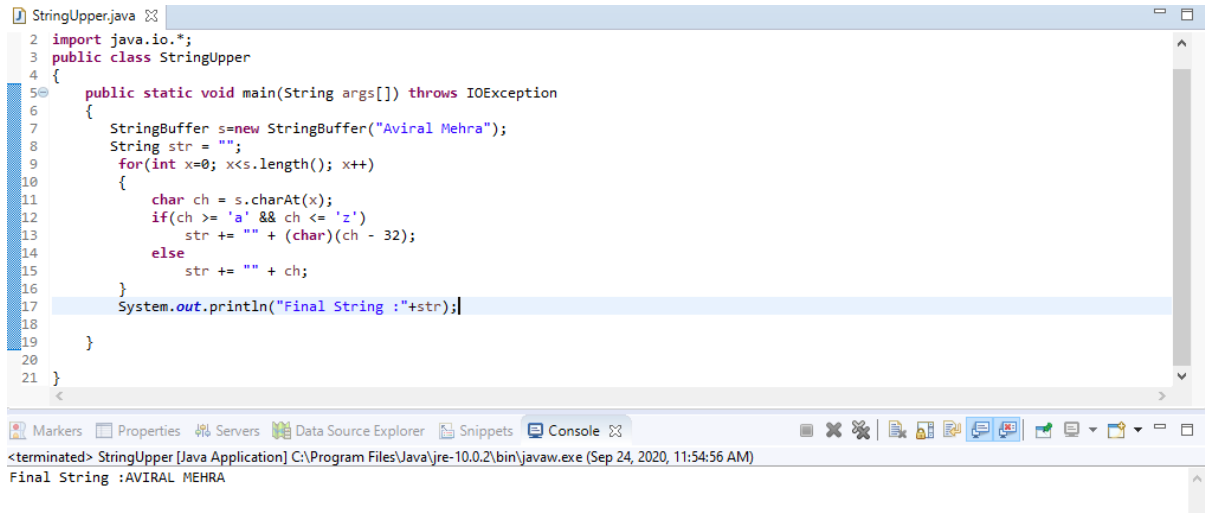
## CODE

```
package rohan;  
import java.io.*;  
public class StringUpper  
{  
    public static void main(String args[]) throws IOException  
    {  
        StringBuffer s=new StringBuffer("Aviral Mehra");  
        String str = "";  
        for(int x=0; x<s.length(); x++)  
        {  
            char ch = s.charAt(x);  
            if(ch >= 'a' && ch <= 'z')  
                str += "" + (char)(ch - 32);  
            else  
                str += "" + ch;  
        }  
        System.out.println("Final String :"+str);  
    }  
}
```

```
}
```

```
}
```

## OUTPUT



```
StringUpper.java
2 import java.io.*;
3 public class StringUpper
4 {
5     public static void main(String args[]) throws IOException
6     {
7         StringBuffer s=new StringBuffer("Aviral Mehra");
8         String str = "";
9         for(int x=0; x<s.length(); x++)
10        {
11            char ch = s.charAt(x);
12            if(ch >= 'a' && ch <= 'z')
13                str += "" + (char)(ch - 32);
14            else
15                str += "" + ch;
16        }
17        System.out.println("Final String :"+str);
18    }
19 }
20 }
21 }
```

Markers Properties Servers Data Source Explorer Snippets Console

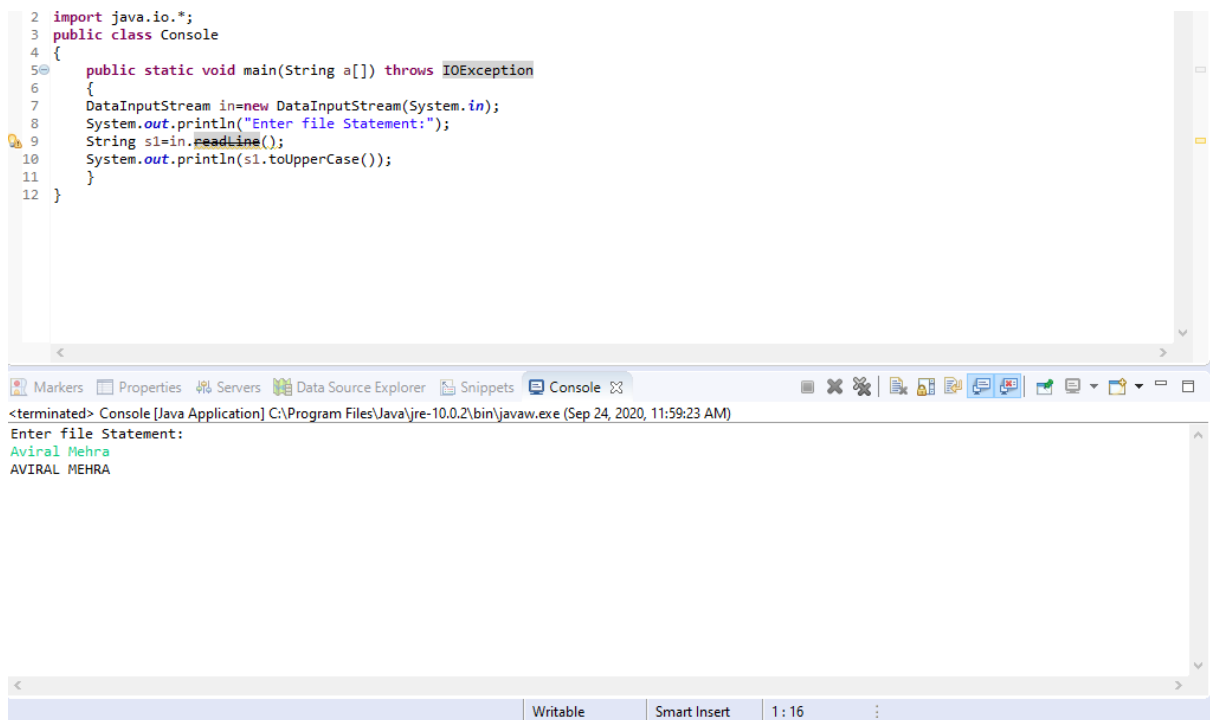
<terminated> StringUpper [Java Application] C:\Program Files\Java\jre-10.0.2\bin\javaw.exe (Sep 24, 2020, 11:54:56 AM)  
Final String :AVIRAL MEHRA

**3. Write a program in Java to read a statement from console, convert it into upper case and again print on console. (Don't use inbuilt function)**

## CODE

```
package rohan;
import java.io.*;
public class Console
{
    public static void main(String a[]) throws IOException
    {
        DataInputStream in=new DataInputStream(System.in);
        System.out.println("Enter file Statement:");
        String s1=in.readLine();
        System.out.println(s1.toUpperCase());
    }
}
```

## OUTPUT



```
2 import java.io.*;
3 public class Console
4 {
5     public static void main(String a[]) throws IOException
6     {
7         DataInputStream in=new DataInputStream(System.in);
8         System.out.println("Enter file Statement:");
9         String s1=in.readLine();
10        System.out.println(s1.toUpperCase());
11    }
12 }
```

<terminated> Console [Java Application] C:\Program Files\Java\jre-10.0.2\bin\javaw.exe (Sep 24, 2020, 11:59:23 AM)

Enter file Statement:  
Aviral Mehra  
AVIRAL MEHRA

**4. Write a program in Java to create a String object. Initialize this object with your name. Find the length of your name using the appropriate String method. Find whether the character ‘a’ is in your name or not; if yes find the number of times ‘a’ appears in your name. Print locations of occurrences of ‘a’ .Try the same for different String object**

## CODE

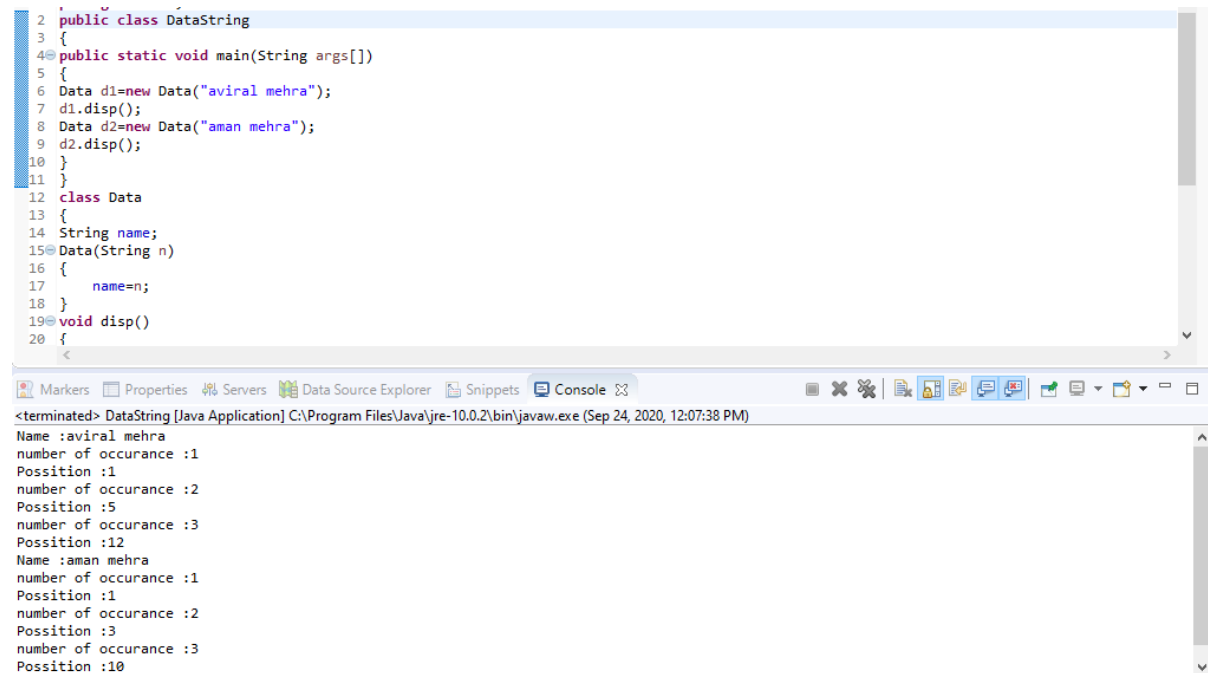
```
package rohan;
public class DataString
{
    public static void main(String args[])
    {
        Data d1=new Data("aviral mehra");
        d1.disp();
        Data d2=new Data("aman mehra");
        d2.disp();
    }
}
class Data
{
    String name;
    Data(String n)
```

```

{
    name=n;
}
void disp()
{
System.out.println("Name :"+name);
int c=0;
int len=name.length();
for(int i=0;i<len;i++)
if(name.charAt(i)=='A' || name.charAt(i)=='a')
{
    c++;
    System.out.println("number of occurance :"+c);
    System.out.println("Possition :"+(i+1));
}
if(c==0)
System.out.println("there is no 'A' available in the string");
}
}

```

## OUTPUT



The screenshot shows an IDE with a Java file named `DataString.java`. The code defines a `DataString` class with a `main` method and a `Data` class with a `disp` method. The `main` method creates two `Data` objects, `d1` (with name "aviral mehra") and `d2` (with name "aman mehra"), and calls their `disp` methods. The `disp` method prints the name and the count and positions of 'A' and 'a' characters in the string.

The console output shows the results of running the program:

```

<terminated> DataString [Java Application] C:\Program Files\Java\jre-10.0.2\bin\javaw.exe (Sep 24, 2020, 12:07:38 PM)
Name :aviral mehra
number of occurance :1
Possition :1
number of occurance :2
Possition :5
number of occurance :3
Possition :12
Name :aman mehra
number of occurance :1
Possition :1
number of occurance :2
Possition :3
number of occurance :3
Possition :10

```