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## Lab 9

Ques1: 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.

### Source Code

```
package Lab9;

public class FirstAndLastIndex {
    public static void main(String args[]) {
        System.out.println("Hitendra Sisodia");
        System.out.println("500091910");
        String s = "This is demo";
        String str = "is";
        System.out.println("String: "+s);
        System.out.println("Search subsstring: "+str);
        System.out.println("First occurance: "+s.indexOf(str));
        System.out.println("Last occurnace: "+s.lastIndexOf(str));
    }
}
```

### Output



The screenshot shows a Java console window titled "Console x". The window content displays the output of the program: "Hitendra Sisodia", "500091910", "String: This is demo", "Search subsstring: is", "First occurance: 2", and "Last occurnace: 5". The window title bar includes standard Windows window controls and a status bar at the bottom shows the file path and execution details.

```
<terminated> FirstAndLastIndex [Java Application] C:\Program Files\Java\jdk-17.0.2\bin\javaw.exe (Nov 3, 2022, 2:19:32 PM – 2:19:33 PM) [pid: 2012]
Hitendra Sisodia
500091910
String: This is demo
Search subsstring: is
First occurance: 2
Last occurnace: 5
```

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## Lab 9

Ques2: Write a program that converts all characters of a string in capital letters.

### Source Code

```
package Lab9;

public class UpperCase {
    public static void main(String args[]) {
        System.out.println("Hitendra Sisodia");
        System.out.println("500091910");
        String str = "Introduction to java Programming";
        str = str.toUpperCase();
        System.out.println(str);
    }
}
```

### Output

A screenshot of a Java console window titled "Console x". The window shows the output of the program: "Hitendra Sisodia", "500091910", and "INTRODUCTION TO JAVA PROGRAMMING". The console window has a standard Windows-style title bar with minimize, maximize, and close buttons. The output is displayed in a monospaced font, with each line on a new line.

```
<terminated> UpperCase [Java Application] C:\Program Files\Java\jdk-17.0.2\bin\javaw.exe (Nov 3, 2022, 2:28:23 PM - 2:28:23 PM) [pid: 10452]
Hitendra Sisodia
500091910
INTRODUCTION TO JAVA PROGRAMMING
```

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## Lab 9

Ques3: 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).

### Source Code

```
package Lab9;
import java.util.*;

public class UpperCaseWithoutInbuiltFunction {
    public static void main(String args[]) {
        System.out.println("Hitendra Sisodia");
        System.out.println("500091910");
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter String: ");
        String str = sc.nextLine();
        int size = str.length();
        char arr[] = str.toCharArray();
        for(int i = 0; i < size ; i++) {
            if(arr[i] >= 'a' && arr[i] <= 'z') {
                arr[i] -= 32;
            }
        }
        String newstr= "";
        for(int i = 0; i < size ; i++) {
            newstr += arr[i];
        }
        System.out.println(newstr);
    }
}
```

### Output

```
Console ×
<terminated> UpperCaseWithoutInbuiltFunction [Java Application] C:\Program Files\Java\jdk-17.0.2\bin\javaw.exe (Nov 3, 2022, 2:30:52 PM – 2:31:28 PM) [pid: 11492]
Hitendra Sisodia
500091910
Enter String: Introduction to java programming
INTRODUCTION TO JAVA PROGRAMMING
```

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## Lab 9

**Ques4:** 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 objects.

### Source Code

```
package Lab9;
import java.util.Scanner;

public class StringObject {
    public static void main(String args[]) {
        System.out.println("Hitendra Sisodia");
        System.out.println("500091910");
        System.out.print("Enter your name: ");
        Scanner sc = new Scanner(System.in);
        String str = new String();
        str = sc.nextLine();
        int size = str.length();
        System.out.println("Length of name is: "+size);
        int occurrence = 0;
        char arr[] = str.toCharArray();
        for(int i = 0 ; i < size ; i++) {
            if(arr[i] == 'a') {
                occurrence++;
                System.out.println("char a spotted at: "+i);
            }
        }
        System.out.println("Total No of occurnace of char a is: "+occurrence);
    }
}
```

### Output



```
<terminated> StringObject [Java Application] C:\Program Files\Java\jdk-17.0.2\bin\javaw.exe (Nov 3, 2022, 2:37:15 PM - 2:37:26 PM) [pid: 10428]
Hitendra Sisodia
500091910
Enter your name: aaaavbghitendraa
Length of name is: 16
char a spotted at: 0
char a spotted at: 1
char a spotted at: 2
char a spotted at: 3
char a spotted at: 14
char a spotted at: 15
Total No of occurnace of char a is: 6
```