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## **CODINC CHALLENGE III**

1 .Write a java Program to display only digits in an alpha numeric String (Input: 75#41\* Output:7541)

### **Program:**

```
package com.codingchallenge3;

import java.util.Scanner;

public class Displaydigits {
    public static void main(String[] args) {

        Scanner s=new Scanner(System.in);
        System.out.println("enter the string:");
        String input = s.next();

        String output = extractDigits(input);
        System.out.println("Output: " + output);
    }

    public static String extractDigits(String input) {
        StringBuilder result = new StringBuilder();
        for (int i = 0; i < input.length(); i++) {
            char ch = input.charAt(i);
            if (Character.isDigit(ch)) {
                result.append(ch);
            }
        }
        return result.toString();
    }
}
```

### **Output:**

```
enter the string:
75#41*
Output: 7541
```

2 .Write a program to convert Given String onto uppercase and lowercase without using String Method

### **Program:**

```
package com.codingchallenge3;

import java.util.Scanner;

public class Stringcaseconverter {

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

```

Scanner s=new Scanner(System.in);
System.out.println("enter the string:");
String input = s.next();

String upperCase = convertToUpperCase(input);
String lowerCase = convertToLowerCase(input);

System.out.println("Original String: " + input);
System.out.println("Uppercase: " + upperCase);
System.out.println("Lowercase: " + lowerCase);
}

public static String convertToUpperCase(String str) {
    char[] chars = str.toCharArray();
    for (int i = 0; i < chars.length; i++) {
        if (chars[i] >= 'a' && chars[i] <= 'z') {
            chars[i] = (char) (chars[i] - 32);
        }
    }
    return new String(chars);
}

public static String convertToLowerCase(String str) {
    char[] chars = str.toCharArray();
    for (int i = 0; i < chars.length; i++) {
        if (chars[i] >= 'A' && chars[i] <= 'Z') {
            chars[i] = (char) (chars[i] + 32);
        }
    }
    return new String(chars);
}
}

```

## Output:

```

enter the string:
mubeen
Original String: mubeen
Uppercase: MUBEEN
Lowercase: mubeen

```

3. Write a program to print reverse a of a string word by word (Input: I am a developer Output: developer a am I)

## Program:

```

package com.codingchallenge3;

import java.util.Scanner;

public class ReverseString {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter a string: ");
        String input = scanner.nextLine();

        String reversedString = reverseWords(input);
    }
}

```

```

        System.out.println("Reversed string: " + reversedString);
    }

    public static String reverseWords(String input) {
        String[] words = input.split("\\s+");
        StringBuilder reversed = new StringBuilder();

        for (int i = words.length - 1; i >= 0; i--) {
            reversed.append(words[i]);
            if (i != 0) {
                reversed.append(" ");
            }
        }

        return reversed.toString();
    }
}

```

## Output:

```

Enter a string: I am a developer
Reversed string: developer a am I

```

4. Write a program to print repeated characters from a given String

## Program:

```

package com.codingchallenge3;

import java.util.Scanner;

public class RepeatedCharacters {

    public static void main(String[] args) {
        Scanner s = new Scanner(System.in);
        System.out.println("enter the String:");
        String input = s.next();
        printRepeatedCharacters(input);
    }

    public static void printRepeatedCharacters(String str) {

        str = str.toLowerCase();

        int[] charCounts = new int[128];

        for (char ch : str.toCharArray()) {
            charCounts[ch]++;
        }

        System.out.println("Repeated characters in the string:");
        for (int i = 0; i < charCounts.length; i++) {
            if (charCounts[i] > 1) {
                System.out.println((char) i + ": " + charCounts[i] +
                    " times");
            }
        }
    }
}

```

## Output:

```
enter the String:
mubeen
Repeated characters in the string:
e: 2 times
```

5 Write a program to count number of vowels in a given String

## Program:

```
package com.codingchallenge3;

import java.util.Scanner;

public class Countvowels {

    public static void main(String[] args) {
        Scanner s=new Scanner(System.in);
        System.out.println("enter the String:");
        String input = s.next();

        int vowelCount = countVowels(input);
        System.out.println("Number of vowels in the string: " +
vowelCount);
    }

    public static int countVowels(String str) {

        str = str.toLowerCase();

        int count = 0;

        for (char ch : str.toCharArray()) {
            if (isVowel(ch)) {
                count++;
            }
        }

        return count;
    }

    public static boolean isVowel(char ch) {
        return ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o' || ch ==
'u';
    }
}
```

## Output:

```
enter the String:
mohamed
Number of vowels in the string: 3
```

## 6. Write Program to Remove a Given Word from a String

### Program:

```
package com.codingchallenge3;

public class Removeword {

    public static void main(String[] args) {
        String input = " java is a simple programming language";
        String wordToRemove = "simple";
        String result = removeWord(input, wordToRemove);
        System.out.println("Original String: " + input);
        System.out.println("String after removing '" + wordToRemove + "': "
+ result);
    }

    public static String removeWord(String str, String wordToRemove) {

        String[] words = str.split("\\s+");

        StringBuilder result = new StringBuilder();

        for (String word : words) {
            if (!word.equals(wordToRemove)) {
                result.append(word).append(" ");
            }
        }

        return result.toString().trim();
    }
}
```

### Output:

```
Original String: java is a simple programming language
String after removing 'simple': java is a programming language
```

## 7. Write a Java Program to Remove first and last character of a string in Java

### Program:

```
package com.codingchallenge3;

public class RemoveFlcharacter {

    public static void main(String[] args) {
        String input = "Madam";
        String result = removeFirstLastCharacter(input);
        System.out.println("Original String: " + input);
        System.out.println("String after removing first and last
characters: " + result);
    }

    public static String removeFirstLastCharacter(String str) {
```

```
    if (str.length() <= 2) {  
        return "";  
    } else {  
        return str.substring(1, str.length() - 1);  
    }  
}  
}
```

## Output:

```
Original String: Madam  
String after removing first and last characters: ada
```