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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 RemoveFlcharcter {

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