**1. Given an array . Create two arrays one for Odd Elements and other for Even Elements.**

**CODE :**

public class OddEvenArrays {

public static void main(String[] args) {

int[] inputArray = {10, 3, 5, 12, 17, 22};

int[] evenArray = new int[inputArray.length];

int[] oddArray = new int[inputArray.length];

int evenIndex = 0, oddIndex = 0;

for (int num : inputArray) {

if (num % 2 == 0) {

evenArray[evenIndex++] = num;

} else {

oddArray[oddIndex++] = num;

}

}

evenArray = trimArray(evenArray, evenIndex);

oddArray = trimArray(oddArray, oddIndex);

printArray("Even Array:", evenArray);

printArray("Odd Array:", oddArray);

}

public static void printArray(String label, int[] arr) {

System.out.println(label);

for (int i = 0; i < arr.length && arr[i] != 0; i++) {

System.out.print(arr[i] + " ");

}

System.out.println();

}

public static int[] trimArray(int[] arr, int size) {

int[] trimmedArray = new int[size];

System.arraycopy(arr, 0, trimmedArray, 0, size);

return trimmedArray;

}

}

**2.Compression of String**

**CODE :**

import java.util.Scanner;

public class StringCompression {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter the first string: ");

String input1 = scanner.nextLine();

System.out.print("Enter the second string: ");

String input2 = scanner.nextLine();

scanner.close();

System.out.println("Input 1: " + input1);

System.out.println("Compressed Output 1: " + compressString(input1));

System.out.println("\nInput 2: " + input2);

System.out.println("Compressed Output 2: " + compressString(input2));

}

public static String compressString(String str) {

StringBuilder compressed = new StringBuilder();

int count = 1;

for (int i = 0; i < str.length(); i++) {

if (i + 1 < str.length() && str.charAt(i) == str.charAt(i + 1)) {

count++;

} else {

compressed.append(str.charAt(i));

if (count > 1) {

compressed.append(count);

}

count = 1;

}

}

return compressed.toString();

}

}

**3.**

**Input : zohocorporationteam**

**Output :**

**z o h o c o r**

**p**

**o**

**r**

**a**

**t**

**i o n t e a m**

**CODE :**

public class PrintPattern {

public static void main(String[] args) {

String input = "zohocorporationteam";

printPattern(input);

}

public static void printPattern(String str) {

int n = str.length();

for (int i = 0; i < n; i++) {

for (int j = 0; j < n; j++) {

if (i == j) {

System.out.print(str.charAt(i));

} else if (j == n - i - 1) {

System.out.print(str.charAt(j));

} else {

System.out.print(" ");

}

}

System.out.println();

}

}

}