**QUIZ 10**

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

Input: [10,3,5,12,17,22]

Output:

[10,12,22]

[3,5,7]

import java.util.ArrayList;

public class SeparateOddEven {

public static void main(String[] args) {

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

ArrayList<Integer> evenArray = new ArrayList<>();

ArrayList<Integer> oddArray = new ArrayList<>();

for (int num : inputArray) {

if (num % 2 == 0) {

evenArray.add(num);

} else {

oddArray.add(num);

}

}

int[] evenElements = evenArray.stream().mapToInt(Integer::intValue).toArray();

int[] oddElements = oddArray.stream().mapToInt(Integer::intValue).toArray();

System.out.print("Even Elements: ");

printArray(evenElements);

System.out.print("Odd Elements: ");

printArray(oddElements);

}

private static void printArray(int[] array) {

for (int num : array) {

System.out.print(num + " ");

}

System.out.println();

}

}

OUTPUT:

Even Elements: 10 12 22

Odd Elements: 3 5 17

2.Compression of String

Input: AAABBC

Output: A3B2C

Input: AAABBCCCDE

Output: A3B2C3DE

public class StringCompression {

public static void main(String[] args) {

String input1 = "AAABBC";

String input2 = "AAABBCCCDE";

System.out.println(compressString(input1));

System.out.println(compressString(input2));

}

public static String compressString(String input) {

StringBuilder compressed = new StringBuilder();

int count = 1;

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

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

count++;

} else {

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

if (count > 1) {

compressed.append(count);

}

count = 1;

}

}

return compressed.toString();

}

}

OUTPUT:

A3B2C

A3B2C3DE

Input : zohocorporationteam

Output :

z o h o c o r

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          o

      r

   a

 t

i o n t e a m

public class StringCompression {

public static void main(String[] args) {

String input = "zohocorporationteam";

compressString(input);

}

public static void compressString(String input) {

char[] chars = input.toCharArray();

int n = chars.length;

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

System.out.print(chars[i]);

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

System.out.print(" ");

}

if (i < n - 1) {

System.out.println();

}

}

}

}

OUTPUT:

z o h o c o r

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i o n t e a m