### **JAVA SAMPLE PROGRAMS:**

### **find out all the even numbers exist**

### List<Integer> myList = Arrays.asList(10,15,8,49,25,98,32);

### List<Integer> myList = Arrays.asList(10,15,8,49,25,98,32);

### myList.stream()

### .filter(n -> n%2 == 0)

### .forEach(System.out::println);

### **Given a list of integers, find out all the numbers starting with 1 using Stream functions?**

### myList. .stream()

### .map(s -> s + "") // Convert integer to String

### .filter(s -> s.startsWith("1"))

### .forEach(System.out::println);

### **How to find duplicate elements in a given integers list in java using Stream functions?**

### List<Integer> myList = Arrays.asList(10,15,8,49,25,98,98,32,15);

### Set<Integer> set = new HashSet();

### myList.stream()

### .filter(n -> !set.add(n))

### .forEach(System.out::println);

### **Given the list of integers, find the first element of the list using Stream functions?**

### myList.stream()

### .findFirst()

### .ifPresent(System.out::println);

### **Given a list of integers, find the total number of elements present in the list using Stream functions?**

### Long count =myList.stream()

### .count();

### System.out.println(count);

### **Given a list of integers, find the maximum value element present in it using Stream functions?**

### int max = myList.stream()

### .max(Integer::compare)

### .get();

### System.out.println(max);

### **Given a String, find the first non-repeated character in it using Stream functions?**

### String input = "Java Hungry Blog Alive is Awesome";

### Character result = input.chars() // Stream of String

### .mapToObj(s -> Character.toLowerCase(Character.valueOf((char) s))) // First convert to Character object and then to lowercase

### .collect(Collectors.groupingBy(Function.identity(), LinkedHashMap::new, Collectors.counting())) //Store the chars in map with count

### .entrySet()

### .stream()

### .filter(entry -> entry.getValue() == 1L)

### .map(entry -> entry.getKey())

### .findFirst()

### .get();

### System.out.println(result);

### **Write a program to sort an Array in Java**

### int[] rollNumber = { 23, 17, 20, 29, 30 };

### Arrays.sort(rollNumber);

### for (int temp : rollNumber)

### System.out.print(temp+" ");

### Write a program to check whether two given Arrays are equal, given both contains same data type and same length ?

### int[] arr1 = {2, 3, 4};

### int[] arr2 = {1, 2, 3};

### System.out.println(Arrays.equals(arr1 , arr2));

### int[] arr3 = {2, 3, 4};

### System.out.println(Arrays.equals(arr1 , arr3));

### **Write a program to search a specific element in an Array?**

### int[] arr1 = {1, 2, 3, 4};

### /\* if element present in Array, binarySearch()

### method will return index \*/

### System.out.println(Arrays.binarySearch(arr1, 2));

### Out:1

### **How to find duplicate elements in a given Array?**

### a. using for loop and compare

### for(int i=0; i < arr1.length-1; i++){

### for(int j=i+1; j < arr1.length; j++) {

### 

### if(arr1[i].equals(arr1[j]) && i!=j ) {

### System.out.println("Duplicate in Array is : "+ arr1[j]);

### }

### }

### b. using HashSet:

### String[] arr1 = {"abc", "java", "javahungry", "java", "javahungry" };

### HashSet<String> set = new HashSet<String>();

### 

### for (String val : arr1)

### {

### if (set.add(val) == false){

### System.out.print (val+" ");

### }

### }

### **Find out smallest and largest number in a given Array?**

### int[] inputArr = {10,43,27,98,75,59,191};

### // Setting largest value

### int largest = inputArr[0];

### // Setting smallest value

### int smallest = inputArr[0];

### // Iterate through the Given Array

### for( int number : inputArr ) {

### if(number > largest) {

### largest = number;

### }

### else if (smallest > number) {

### smallest = number;

### }

### }

### System.out.println("Largest and Smallest numbers are "

### + largest +" "+smallest);

### }

### }

### Output Largest and Smallest numbers are 191 10

### **Write a program to sum all the values of a given Array in java?**

### / Given Array

### int[] inputArr = {10,43,27,98,75,59,191};

### int sum = 0;

### //Iterating through the Array

### for(int num : inputArr) {

### sum = sum + num;

### }

### System.out.println(sum);

### **Write a program to find second largest element in a given Array in java?**

### // Given Array

### int inputArray[] = new int[] {10,43,27,98,75,59,191};

### // Sort Array

### Arrays.sort(inputArray);

### // Iterate Array to Second last element

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

### // Print second last element

### if(i == inputArray.length- 2)

### System.out.println(inputArray[i]);

### }

### }

### }

### Output :

### 98

### **Write a program to find the first repeating number in an integer Array?**

### int minimum = -1;

### HashSet set = new HashSet();

### for (int i = arr.length-1 ;i >=0 ;i--) {

### if(set.contains(arr[i]))

### minimum = i;

### else

### set.add(arr[i]);

### }

### if(minimum != -1){

### System.out.println("first repeating element is : "+ arr[minimum]);

### }

### 6 }