**Java Assignment 01**

1. **Arrays Coding Questions**

**Que 01 –** **Write a program to print elements of Array ?**

**Ans🡪**

Write a program to print elements of Array ?

import java.lang.\*;

import java.util.\*;

class ArrayElements1{

public static void main(String args[]){

int array[] = new int[7];

array[0] = 11;

array[1] = 12;

array[2] = 13;

array[3] = 14;

array[4] = 15;

array[5] = 16;

array[6] = 17;

for(int x : array){

System.out.println(x);

}

}

}

**==============================================================**

**Que 02 – Write a Java program to check the equality of two arrays?**

**Ans🡪**

import java.lang.\*;

import java.util.\*;

class EqualityOfArrays2{

public static void main(String args[]){

int a[] = new int[5];

a[0] = 1;

a[1] = 2;

a[2] = 3;

a[3] = 4;

a[4] = 5;

int b[] = new int[5];

b[0] = 1;

b[1] = 4;

b[2] = 5;

b[3] = 2;

b[4] = 3;

int c[] = new int[5];

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

for(int j = 0; j < b.length; j++){

if(a[i] == b[j]){

c[i] = 1;

}

}

}

int count = 0;

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

if(c[i] == 1){

count++;

}

}

if(count == 5){

System.out.println("Both arrays are equal.");

}

else{

System.out.println("Both arrays are not equal.");

}

}

}

**==============================================================**

**Que 03 – Write a Java program to find all pairs of elements in an integer array whose sum is equal to a given number?**

**Ans🡪**

import java.lang.\*;

import java.util.\*;

class ArraySumOfPair3{

public static void main(String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Enter the elements in the array : ");

int n = sc.nextInt();

int array[] = new int[6];

System.out.println("Enter the elements of the array : ");

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

array[i] = sc.nextInt();

}

System.out.println("Enter the sum you want : ");

int sum = sc.nextInt();

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

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

}

}

}

}

**==============================================================**

**Que 04 –** Write a program to reverse an Array in java .

**Ans🡪**

import java.lang.\*;

import java.util.\*;

class ReverseArray4{

public static void main(String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Enter the no of elements in the array : ");

int n = sc.nextInt();

int array[] = new int[n];

System.out.println("Enter the elements of the array : ");

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

array[i] = sc.nextInt();

}

int temp;

int start = 0;

int end = n-1;

while(start < end){

temp = array[start];

array[start] = array[end];

array[end] = temp;

start++;

end--;

}

System.out.println("Array after reversal : ");

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

System.out.println(array[i]);

}

}

}

**==============================================================**

**Que 05 – Find out smallest and largest number in a given Array?**

**Ans🡪**

import java.util.\*;

class Array5

{

public static void main(String args[])

{

int large,small,i;

int a[] = new int[]{1, 2, 3, 4, 5};

int n = a.length;

large=small=a[0];

for(i=1;i<n;++i)

{

if(a[i]>large)

large=a[i];

if(a[i]<small)

small=a[i];

}

System.out.print("\nThe smallest element is "+ small);

System.out.print("\nThe largest element is "+ large);

}

}

**==============================================================**

**Que 06 – Print the third-largest number in an array without sorting it Input: [ 24,54,31,16,82,45,67]**

**Ans🡪**

class Array6

{

static void thirdLargest(int arr[],int arr\_size)

{

if (arr\_size < 3)

{

System.out.printf(" Invalid Input ");

return;

}

int first = arr[0];

for (int i = 1;i < arr\_size;i++)

if(arr[i]>first)

first = arr[i];

int second = Integer.MIN\_VALUE;

for (int i = 0;i<arr\_size;i++)

if(arr[i]>second &&

arr[i]<first)

second = arr[i];

int third =Integer.MIN\_VALUE;

for (int i = 0;i<arr\_size;i++)

if(arr[i]>third &&

arr[i]<second)

third = arr[i];

System.out.printf("The third Largest "+"element is %d\n", third);

}

public static void main(String []args)

{

int arr[] = {24,54,31,16,82,45,67};

int n = arr.length;

thirdLargest(arr, n);

}

}

**==============================================================**

**Que 07 – Write a program to merge two arrays of integers by reading one number at a time from each array until one of the array is exhausted, and then concatenating the remaining numbers.**

**Input: [23,60,94,3,102] and [42,16,74]**

**Output: [23,42,60,16,94,74,3,102]**

**Ans🡪**

class Q7

{

public static void main(String args[])

{

int a[]={23,60,94,3,102};

int b[]={42,16,74};

int a1=a.length;

int b1=b.length;

int c1=a1+b1;

int c[]=new int[c1];

System.arraycopy(a,0,c,0,a1);

System.arraycopy(b,0,c,a1,b1);

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

{

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

}

}

}

/\*

Coping items of one array into another array:

Syntax :

public static void arraycopy(Object source\_arr, int sourcePos,

Object dest\_arr, int destPos, int len)

Parameters :

source\_arr : array to be copied from

sourcePos : starting position in source array from where to copy

dest\_arr : array to be copied in

destPos : starting position in destination array, where to copy in

len : total no. of components to be copied.

\*/

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**Que 08 – Write a program which takes an array of integers and prints the running average of 3 consecutive integers.**

**In case the array has fewer than 3 integers, there should be no output.**

**Input: [5,14,35,89,140]**

**Output: [18, 46, 88]**

**(Explanation: 18=(5+14+35/3, 46=(14+35+89)/3, ...)**

**Ans🡪**

import java.util.\*;

class Q8

{

public static void main(String args[])

{

int arr[]={5,14,35,89,140};

int a1=arr.length;

int brr[]=new int[a1-2];

for(int i=0; i<(a1-2); i++)

{

brr[i]=(arr[i]+arr[i+1]+arr[i+2])/3;

}

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

{

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

}

System.out.println();

System.out.print(Arrays.toString(brr));

}

}

/\*

OUTPUT :

18 46 88

[18, 46, 88]

\*/

**==============================================================**

**Que 09 – Write a program which generates the series 1,4,27,16,125,36**

**Ans🡪**

import java.lang.\*;

import java.util.\*;

class SeriesOfSquaresAndCube9{

public static void main(String args[]){

int a[] = new int[6];

int j = 0;

for(int i = 1; i <= 6; i++){

if(i % 2 != 0){

a[j] = i\*i\*i;

j++;

}

else{

a[j] = i\*i;

j++;

}

}

System.out.println("Required series is : ");

for(int x : a){

System.out.println(x);

}

}

}

**==============================================================**

**Que 10 – Given an array of integers, print whether the numbers are in ascending order or in**

**descending order or in random order without sorting**

**Input: [5,14,35,90,139] Output: Ascending**

**Input: [88,67,35,14,-12] Output: Descending**

**Input: [65,14,129,34,7] Output: Random**

**Ans🡪**

import java.lang.\*;

import java.util.\*;

class AscendingDescendingOrder10{

public static void main(String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Enter the no of elements in the array : ");

int n = sc.nextInt();

int a[] = new int[n];

System.out.println("Enter the elements of the array : ");

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

a[i] = sc.nextInt();

}

int small = a[0];

for(int i = 1; i < a.length; i++){

if(a[i] < small){

small = a[i];

}

}

if(small == a[0]){

System.out.println("Array elements are in ascending order");

}

else if(small == a[n-1]){

System.out.println("Array elements are in descending order");

}

else{

System.out.println("Array elements are in random order");

}

}

}

**==============================================================**

**Que 11 – How to convert a byte array to String?**

**Ans🡪**

public class Que11\_ByteArraytoStringExample

{

// Display funtion to print byte array

static void display(byte arr[])

{

int l=arr.length;

for(int i=0;i<l;i++)

{

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

}

System.out.println();

}

public static void main(String args[])

{

try

{

//Given Byte Array

byte[] bytes = "Diwali Homework".getBytes();

System.out.println("Given byte array:");

display(bytes);

//creates a string from the byte array without specifying character encoding

String s = new String(bytes);

System.out.println("Given byte array to String Conversion:");

System.out.println(s);

}

catch(Exception e)

{

e.printStackTrace();

}

}

}

/\***OUTPUT - BYTE ARRAY TO STRING CONVERSION HERE NUMBERS REPRESENTING BYTES ARE ASCII VALUES OF GIVEN CHARACTER**

F:\CDAC\CDAC\_Lab\Diwali Homework\Arrays Coding Questions>java Que11\_ByteArraytoStringExample

Given byte array:

68 , 105 , 119 , 97 , 108 , 105 , 32 , 72 , 111 , 109 , 101 , 119 , 111 , 114 , 107 ,

Given byte array to String Conversion:

Diwali Homework

**==============================================================**

**Que 12 – How to rotate an array left and right by a given number K?**

**Ans🡪**/\*ROTATION OF AN ARRAY(LEFT AND RIGHT ROTATION BY k ELEMENTS) \*/

import java.io.\*;

import java.util.Scanner;

class Que12\_Rotation\_Of\_Array {

// Function 01 - Left Rotation of Array by K elements with auxiliary array temp[].(space complexity)

static void leftRotate\_usingTempArray(int arr[], int k)

{

int n=arr.length;

if(k>n) // when k is greater than length of array means iteration ishappening.

{ k=k%n;}

// Storing rotated version of array

int temp[] = new int[n];

// Keeping track of the current index

// of temp[]

int j = 0;

// Storing the n - k elements of

// array arr[] to the front of temp[]

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

temp[j] = arr[i];

j++;

}

// Storing the first d elements of array arr[]

// into temp

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

temp[j] = arr[i];

j++;

}

// Copying the elements of temp[] in arr[]

// to get the final rotated array

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

arr[i] = temp[i];

}

}

// Function 02 - Right Rotation of Array by K elements with auxiliary array temp[].(space complexity)

static void rightRotate\_usingTempArray(int arr[],int k)

{

int n=arr.length;

int j=0;// current index for temp[] array

int temp[] = new int[n]; // defined temp array with lenght n.

if(k>n) // when k is greater than length of array means iteration ishappening.

{ k=k%n;}

//storing k to n elements in temp[] array

for(int i=n-k;i<n;i++)

{

temp[j]=arr[i]; //storing last k elements as first elements

j++;

}

for(int i=0;i<n-k;i++) //Storing first k elemets 0 to k-1 in last k indices of temp array.

{

temp[j]=arr[i];

j++;

}

for(int i=0;i<n;i++) // assign all elements present in temp[] to arr[]

{

arr[i]=temp[i];

}

}

// Function 03 - Left Rotation of Array by K elements without auxiliary array temp[].(space complexity)

static void leftRotate\_usingIteration(int arr[], int k)

{

int n=arr.length;

int j=0; //for counting of loop

while(j<k)

{

int firstelement=arr[0];

for(int i=0;i<n-1;i++)

{

arr[i]=arr[i+1];

}

arr[n-1]=firstelement;

j++;

}

}

// Function 04 - Right Rotation of Array by K elements without auxiliary array temp[].(space complexity)

static void rightRotate\_usingIteration(int arr[], int k)

{

int n=arr.length;

int j=0; //for counting of loop

while(j<k)

{

int lastelement=arr[n-1];

for(int i=n-1;i>0;i--)

{

arr[i]=arr[i-1];

}

arr[0]=lastelement;

j++;

}

}

// Function to print elements of array

static void PrintTheArray(int arr[])

{

int n=arr.length;

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

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

}

System.out.println();

}

public static void main (String[] args) {

Scanner sc = new Scanner(System.in);

int arr[] = {1, 2, 3, 4, 5, 6, 7,8,9,10};

int N = arr.length;

int k;// shift arrayelements to Left or Right posiotion by k

// k = 3;

int ch=0; // choice variable initialization to enter into while loop

while(ch!=5)

{

System.out.println("Original Array");

PrintTheArray(arr);

System.out.println("Press 1: leftRotate\_usingTempArray.");

System.out.println("Press 2: rightRotate\_usingTempArray.");

System.out.println("Press 3: leftRotate\_usingIteration.");

System.out.println("Press 4: rightRotate\_usingIteration.");

System.out.println("Press 5: Quit the Program.");

System.out.println("Enter Your Choice:");

ch=sc.nextInt();

switch(ch)

{

case 1:

System.out.println("Enter the value of k to shift the array by k positions:");

k=sc.nextInt();

System.out.println("Given input of k="+k);

// Function 01 calling

leftRotate\_usingTempArray(arr, k);

System.out.println("leftRotate\_usingTempArray with elements k="+k);

PrintTheArray(arr);

break;

case 2:

System.out.println("Enter the value of k to shift the array by k positions:");

k=sc.nextInt();

System.out.println("Given input of k="+k);

// Function 02 calling

rightRotate\_usingTempArray(arr, k);

System.out.println("rightRotate\_usingTempArray with elements k="+k);

PrintTheArray(arr);

break;

case 3:

System.out.println("Enter the value of k to shift the array by k positions:");

k=sc.nextInt();

System.out.println("Given input of k="+k);

// Function 03 calling

leftRotate\_usingIteration(arr, k);

System.out.println("leftRotate\_usingIteration with elements k="+k);

PrintTheArray(arr);

break;

case 4:

System.out.println("Enter the value of k to shift the array by k positions:");

k=sc.nextInt();

System.out.println("Given input of k="+k);

// Function 04 calling

rightRotate\_usingIteration(arr, k);

System.out.println("rightRotate\_usingIteration with elements k="+k);

PrintTheArray(arr);

break;

case 5: System.out.println("Your have selected to Quit the program.");

break;

default: System.out.println("Seems entered wrong option.!\nPlease enter correct choice.");

}

System.out.println();

}

}

}

**/\*OUTPUT - ARRAY ROTATION BY K element.**

F:\CDAC\CDAC\_Lab\Diwali Homework\Arrays Coding Questions>java Que12\_Rotation\_Of\_Array

Original Array

1 2 3 4 5 6 7 8 9 10

Press 1: leftRotate\_usingTempArray.

Press 2: rightRotate\_usingTempArray.

Press 3: leftRotate\_usingIteration.

Press 4: rightRotate\_usingIteration.

Press 5: Quit the Program.

Enter Your Choice:

1

Enter the value of k to shift the array by k positions:

2

Given input of k=2

leftRotate\_usingTempArray with elements k=2

3 4 5 6 7 8 9 10 1 2

Original Array

3 4 5 6 7 8 9 10 1 2

Press 1: leftRotate\_usingTempArray.

Press 2: rightRotate\_usingTempArray.

Press 3: leftRotate\_usingIteration.

Press 4: rightRotate\_usingIteration.

Press 5: Quit the Program.

Enter Your Choice:

2

Enter the value of k to shift the array by k positions:

3

Given input of k=3

rightRotate\_usingTempArray with elements k=3

10 1 2 3 4 5 6 7 8 9

Original Array

10 1 2 3 4 5 6 7 8 9

Press 1: leftRotate\_usingTempArray.

Press 2: rightRotate\_usingTempArray.

Press 3: leftRotate\_usingIteration.

Press 4: rightRotate\_usingIteration.

Press 5: Quit the Program.

Enter Your Choice:

3

Enter the value of k to shift the array by k positions:

4

Given input of k=4

leftRotate\_usingIteration with elements k=4

4 5 6 7 8 9 10 1 2 3

Original Array

4 5 6 7 8 9 10 1 2 3

Press 1: leftRotate\_usingTempArray.

Press 2: rightRotate\_usingTempArray.

Press 3: leftRotate\_usingIteration.

Press 4: rightRotate\_usingIteration.

Press 5: Quit the Program.

Enter Your Choice:

4

Enter the value of k to shift the array by k positions:

5

Given input of k=5

rightRotate\_usingIteration with elements k=5

9 10 1 2 3 4 5 6 7 8

Original Array

9 10 1 2 3 4 5 6 7 8

Press 1: leftRotate\_usingTempArray.

Press 2: rightRotate\_usingTempArray.

Press 3: leftRotate\_usingIteration.

Press 4: rightRotate\_usingIteration.

Press 5: Quit the Program.

Enter Your Choice:

6

Seems entered wrong option.!

Please enter correct choice.

Original Array

9 10 1 2 3 4 5 6 7 8

Press 1: leftRotate\_usingTempArray.

Press 2: rightRotate\_usingTempArray.

Press 3: leftRotate\_usingIteration.

Press 4: rightRotate\_usingIteration.

Press 5: Quit the Program.

Enter Your Choice:

5

Your have selected to Quit the program.\*/

**==============================================================**

**Que 13 – Write a program to sort an Array in Java ?**

**Ans🡪**

import java.lang.\*;

import java.util.\*;

class SortingOfArray13{

public static void main(String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Enter the number of elements in the array : ");

int n = sc.nextInt();

int a[] = new int[n];

System.out.println("Enter the elements of the array : ");

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

a[i] = sc.nextInt();

}

int temp;

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

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

if(a[i] > a[j]){

temp = a[i];

a[i] = a[j];

a[j] = temp;

}

}

}

System.out.println("Elements after sorting are : ");

for(int x : a){

System.out.println(x);

}

}

}

**==============================================================**

**Que 14 –Write a program to check whether two given Arrays are equal, given both contains same data type and same length ?**

**Ans🡪**

import java.lang.\*;

import java.util.\*;

class EqualArrays14{

public static void main(String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Enter no of elements in the array 1 : ");

int n1 = sc.nextInt();

int a[] = new int[n1];

System.out.println("Elements in the array 1 are : ");

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

a[i] = sc.nextInt();

}

System.out.println("Enter no of elements in the array 2 : ");

int n2 = sc.nextInt();

int b[] = new int[n2];

System.out.println("Elements in the array 2 are : ");

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

b[i] = sc.nextInt();

}

int c[] = new int[n1];

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

for(int j = 0; j < b.length; j++){

if(a[i] == b[j]){

c[i] = 1;

}

}

}

int count = 0;

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

if(c[i] == 1){

count++;

}

}

if(count == n1){

System.out.println("Both the arrays are equal");

}

else{

System.out.println("Both arrays are not equal");

}

}

}

**==============================================================**

**Que 15 –How to find the missing number in a given Array from number 1 to 100 ?**

**Ans🡪**

import java.lang.\*;

import java.util.\*;

class {

public static void main(String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Enter the number elements in array : ");

int n = sc.nextInt();

int a[] = new int[n];

System.out.println("Enter the elements of the array : ");

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

a[i] = sc.nextInt();

}

int totSum = n\*(n+1)/2;

int arrSum = 0;

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

arrSum = arrSum + a[i];

}

int num = totSum - arrSum;

System.out.println("Missing number in the array is : "+num);

}

}

**==============================================================**

**Que 16 – Given two arrays, find the intersection between them?**

**Ans🡪**

import java.lang.\*;

import java.util.\*;

class IntersectionOfArray16{

public static void main(String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Enter the no of elements in array 1 : ");

int n1 = sc.nextInt();

int a[] = new int[n1];

System.out.println("Enter the elements of the array : ");

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

a[i] = sc.nextInt();

}

System.out.println("Enter the no of the elements in array 2 : ");

int n2 = sc.nextInt();

int b[] = new int[n2];

System.out.println("Enter the elements of the array : ");

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

b[i] = sc.nextInt();

}

ArrayList<Integer> l1 = new ArrayList<Integer>();

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

for(int j = 0; j < b.length; j++){

if(a[i] == b[j]){

if(l1.contains(a[i])){

continue;

}

else{

l1.add(a[i]);

}

}

}

}

System.out.println("Intersection between two array is : ");

System.out.print("[ ");

for(Integer x : l1){

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

}

System.out.println("]");

}

}

**==============================================================**

**Que 17 – Find the missing number in an Array between 1 to 100. Given only one number is missing**

**Ans🡪**

import java.util.Scanner;

class MissingArrayNumber

{

public static void main(String[] args)

{

Scanner sc = new Scanner(System.in);

System.out.println("Enter the n value: ");

int n = sc.nextInt();

int inpArray[] = new int[n];

System.out.println("Enter " +(n-1)+ " numbers: ");

for(int i=0; i<=n-2; i++)

inpArray[i] = sc.nextInt();

}

//Finding the missing number

int sumOfAll = (n\*(n+1))/2;

int sumOfArray = 0;

for(int i=0; i<=n-2; i++)

{

sumOfArray = sumOfArray+inpArray[i];

}

int missingNumber = sumOfAll-sumOfArray;

System.out.println("Missing number is: "+missingNumber);

}

}

**==============================================================**

**Que 18 –** How to find duplicate elements in a given Array

**Ans🡪**

class DuplicateElements

{

public static void main(String[] args)

{

int [] arr = new int [] {1, 2, 3, 4, 5, 7, 7, 8,8, 9, 6};

System.out.println("Duplicate elements in a given array is : ");

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

{

for(int j = i + 1; j < arr.length; j++)

{

if(arr[i] == arr[j])

{

System.out.println("Duplicate element = "+arr[i]);

break;

}

}

}

}

}

**==============================================================**

**Que 19 – Write a program to sum all the values of a given Array in java?**

**Ans🡪**

import java.lang.\*;

import java.util.\*;

class SumOfElements19{

public static void main(String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Enter the no of elements in the array : ");

int n = sc.nextInt();

int a[] = new int[n];

System.out.println("Enter the elements of the array : ");

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

a[i] = sc.nextInt();

}

int sum = 0;

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

sum = sum + a[i];

}

System.out.println("Sum of the elements of the array is : "+sum);

}

}

**==============================================================**

**Que 20 – How do you separate zeros and non-zeros in a given Array in java?**

**Ans🡪**

import java.lang.\*;

import java.util.\*;

class ZeroAndNonZeros20{

public static void main(String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Enter the no of the elements in the array : ");

int n = sc.nextInt();

int a[] = new int[n];

System.out.println("Enter the elements of the array : ");

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

a[i] = sc.nextInt();

}

ArrayList<Integer> l1 = new ArrayList<Integer>();

ArrayList<Integer> l2 = new ArrayList<Integer>();

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

if(a[i] == 0){

l1.add(0);

}

else{

l2.add(a[i]);

}

}

System.out.println("Array after separation is(Zeros): ");

for(Integer c : l1){

System.out.println(c);

}

System.out.println("Array after separation is(Non zeros): ");

for(Integer b : l2){

System.out.println(b);

}

}

}

**==============================================================**

**Que 21 –How to convert Array to ArrayList in java ?**

**Ans🡪**

import java.lang.\*;

import java.util.\*;

class ArrayToArrayList21{

public static void main(String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Enter the no of the elements in the array : ");

int n = sc.nextInt();

int a[] = new int[n];

System.out.println("Enter the elements of the array : ");

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

a[i] = sc.nextInt();

}

ArrayList<Integer> l1 = new ArrayList<Integer>();

for(int x : a){

l1.add(x);

}

System.out.println("Elements in the array list are : ");

for(int x : l1){

System.out.println(x);

}

}

}

**==============================================================**

**Que 22 – How to convert Array to TreeSet in java ?**

**Ans🡪**

import java.lang.\*;

import java.util.\*;

class ArrayToTreeSet22{

public static void main(String args[]){

Scanner sc = new Scanner(System.in);

System.out.println("Enter the no of the elements ");

int n = sc.nextInt();

int a[] = new int[n];

System.out.println("Enter the elements of the array : ");

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

a[i] = sc.nextInt();

}

TreeSet<Integer> t1 = new TreeSet<Integer>();

for(int b : a){

t1.add(b);

}

System.out.println("Elements in the tree set are : ");

for(int c : t1){

System.out.println(c);

}

}

}

**==============================================================**

**Que 23 – How to convert ArrayList to String Array in java ?**

**Ans🡪**

import java.util.ArrayList;

import java.util.Arrays;

class Array23

{

public static void main(String[] args)

{

ArrayList<String> al = new ArrayList<String>();

al.add("A");

al.add("B");

al.add("C");

al.add("D");

String[] str = new String[al.size()];

for (int i = 0; i < al.size(); i++)

{

str[i] = al.get(i);

}

for(String k : str)

{

System.out.println(k);

}

}

}

**==============================================================**

**Que 24 – Write a program to find second largest element in a given Array in java?**

**Ans🡪**

class Q24

{

public static void main(String args[])

{

int arr[]={5,14,35,89,140,44,59};

int a1=arr.length;

for(int i=0; i<a1; i++)

{

for(int j=i+1; j<a1; j++)

{

if(arr[i]>arr[j])

{

int temp=arr[i];

arr[i]=arr[j];

arr[j]=temp;

}

}

}

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

{

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

}

System.out.println();

System.out.println("2nd largest element= "+arr[a1-2]);

}

}

/\*

**OUTPUT :**

5 14 35 44 59 89 140

2nd largest element= 89

\*/

**==============================================================**