***Dt : 16/9/2022***

***faq:***

***define Sorting process?***

***=>The process of ordering the elements is known as Sorting process.***

***=>Sorting process categorized into two types:***

***(i)Ascending order - Arranging Lower element to Higher element***

***(ii)Descending order- Arranging Higher element to Lower element***

***Note:***

***=>we use pre-defined sort() method from java.util.Arrays class***

***to perform sorting process on Array-Objects.***

***Ex : DemoArray4\_Sorting.java***

***package maccess;***

***import java.util.\*;***

***public class DemoArray4\_Sorting {***

***@SuppressWarnings("removal")***

***public static void main(String[] args) {***

***Scanner s = new Scanner(System.in);***

***System.out.println("Enter the size of Array:");***

***int size = s.nextInt();***

***Integer a[] = new Integer[size];***

***System.out.println("Enter "+size+" elements:");***

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

***{***

***a[i] = new ~~Integer~~(s.nextInt());***

***}//end of if***

***System.out.println("====Display before Sorting===");***

***for(Integer k : a)***

***{***

***System.out.print(k+" ");***

***}//end of loop***

***System.out.println("\n====Display After Sorting===");***

***Arrays.sort(a);//Sorting process***

***for(Integer k : a)***

***{***

***System.out.print(k+" ");***

***}//end of loop***

***s.close();***

***}***

***}***

***o/p:***

***Enter the size of Array:***

***5***

***Enter 5 elements:***

***12***

***11***

***10***

***45***

***32***

***====Display before Sorting===***

***12 11 10 45 32***

***====Display After Sorting===***

***10 11 12 32 45***

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

***Assignment:***

***wap to read a String and display the String by arranging words in***

***String based on Alphabetical order.***

***Assignment:***

***wap program to read and String display the characters in order?***

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

***Note : Sorting on User defined class objects in Interface chapter.***

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

***Assignment:***

***wap to read and display multiple Student details with result using***

***Arrays.***

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

***faq:***

***define 'Object' Array?***

***=>The array which is declared with 'java.lang.Object' class is***

***known as 'Object' array.***

***Note:***

***=>Object Array can hold Dis-Similer objects,which means objects***

***of different classes.***

***syntax:***

***Object o[] = new Object[size];***

***Ex : DemoArray5.java***

***package maccess;***

***import test.Product;***

***public class DemoArray5 {***

***@SuppressWarnings("removal")***

***public static void main(String[] args) {***

***Object o[] = new Object[3];//Object Array***

***o[0] = new ~~Integer~~(121);//Integer WrapperClass object***

***o[1] = new String("NIT");//String Object***

***o[2] = new Product("A001","CJ",1200,12);***

***//User defined Product Object***

***System.out.println("====Object Array===");***

***for(Object k : o)***

***{***

***System.out.println("Object : "+k.toString());***

***}//end of loop***

***}***

***}***

***o/p:***

***====Object Array===***

***Object : 121***

***Object : NIT***

***Object : A001 CJ 1200.0 12***

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

***faq:***

***define Jagged Array?***

***=>The Array which is holding Array-objects is known as Jagged***

***Array.***

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

***2.Multi-Dimensional Arrays:***

***=>The Arrays which are declared with more than one dimensions are***

***known as Multi-Dimensional Arrays.***

***Ex:***

***2-D Arrays***

***3-D Arrays***

***4-D Arrays***

***...***

***Note:***

***=>In realtime Multi-D Arrays are less used when compared to***

***1-D Arrays,but 2-D Arrays are used to construct "Jagged Arrays".***

***syntax of 2-D Array:***

***Class\_name arr\_var[][] = new Class\_name[size][size];***

***Ex : DemoArray6.java***

***package maccess;***

***import java.util.\*;***

***public class DemoArray6 {***

***@SuppressWarnings("removal")***

***public static void main(String[] args) {***

***Scanner s = new Scanner(System.in);***

***System.out.println("Enter the Size of Array-1");***

***int size1 = s.nextInt();***

***Integer a1[] = new Integer[size1];***

***System.out.println("==="+size1+" Elements for Array-1===");***

***for(int i=0;i<a1.length;i++) {***

***a1[i] = new ~~Integer~~(s.nextInt());***

***}//end of loop***

***System.out.println("Enter the Size of Array-2");***

***int size2 = s.nextInt();***

***Integer a2[] = new Integer[size2];***

***System.out.println("==="+size2+" Elements for Array-2===");***

***for(int i=0;i<a2.length;i++) {***

***a2[i] = new ~~Integer~~(s.nextInt());***

***}//end of loop***

***Integer a[][] = {a1,a2};//Jagged\_Array***

***System.out.println("====Display from JaggedArray===");***

***for(Integer i[] : a)***

***{***

***System.out.print("Array : ");***

***for(Integer j : i)***

***{***

***System.out.print(j.toString()+" ");***

***}//InnerLoop***

***System.out.println();***

***}//OuterLoop***

***s.close();***

***}***

***}***

***o/p:***

***Enter the Size of Array-1***

***4***

***===4 Elements for Array-1===***

***11***

***12***

***13***

***14***

***Enter the Size of Array-2***

***3***

***===3 Elements for Array-2===***

***23***

***22***

***21***

***====Display from JaggedArray===***

***Array : 11 12 13 14***

***Array : 23 22 21***

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