

Q.1 Read array elements by the user. Give two options to choose from -> 1. Ascending order 2. Descending order then do the sorting and display the sorted array elements.

```
package Packgetype;
import java.util.Scanner;

public class Quiz3Q1 {

    public static void main(String[] args) {
        //1)Read array elements by the user. Give two options to choose from ->
        //1. Ascending order 2. Descending order then do the sorting and display the
        sorted array elements.

        Scanner sc=new Scanner(System.in);

        System.out.print("Enter Length of Array : "); //taking user input for the
        length of array
        int a=sc.nextInt();

        int[] arr=new int[a];

        System.out.println("Enter the Elements of Array: ");// taking elements of array
        from user

        for (int i=0;i<a;i++) {
            if (sc.hasNextInt()) {
                arr[i] = sc.nextInt();
            }
        }
        System.out.println("\nThe elements of the array are: ");

        for (int i=0;i<a;i++) {
            // prints the elements of an array
            System.out.print(arr[i]+" ");
        }

        System.out.println(" "); // giving two options to user 1st option is ascending
        order and 2nd option is descending order

        System.out.println("\nEnter 1 if You want to display elements sort in Ascending
        order or Enter 2 if You want to display elements sort in descending order ");

        int option=sc.nextInt(); //Taking user input as option

        int temp=0;
        switch(option) {

        case 1: //Case 1 for elements in ascending order
            for (int i = 0; i < a; i++) {
                for (int j = i+1; j < a; j++) {
                    if(arr[i] > arr[j]) {
                        temp = arr[i];
                        arr[i] = arr[j];
                        arr[j] = temp;
                    }
                }
            }
            System.out.println();

        //Displaying elements of array after sorting
        System.out.println("Elements of array sorted in ascending order: ");

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

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

        }
    }
}
```

```

        break;

    case 2:    //Case 2 for elements in descending order
        for (int i = 0; i < a; i++) {
            for (int j=i+1;j<a;j++) {
                if(arr[i] < arr[j]) {
                    temp = arr[i];
                    arr[i] = arr[j];
                    arr[j] = temp;
                }
            }
        }
        System.out.println();

//Displaying elements of array after sorting
System.out.println("Elements of array sorted in descending order: ");

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

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

        }
    break;

    default:    //Case 3 for default option
        System.out.println("Invalid Option selected ");
}

}

}

```

Output:-

```

<terminated> Quiz3Q1 [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (11-Aug-2023, 10:58:19 pm - 10:58:45 pm) [pid: 12136]
Enter Length of Array : 5
Enter the Elements of Array:
23
32
12
52
47

The elements of the array are:
23 32 12 52 47

Enter 1 if You want to display elements sort in Ascending order or Enter 2 if You want to display elements sort in descending order
1
Elements of array sorted in ascending order:
12 23 32 47 52

```

Q.2 Print a 2D pattern of the first character of your name in the respective character shape

```
package JavaPrograms;

public class NamePattern {

    public static void main(String[] args)

//Q.2)Print a 2D pattern of the first character of your name in the respective
character shape

    int k=10;

    System.out.println("Pattern for First letter of Diksha");

    for(int i=0;i<=k;i++) {        // for row i=0 and i=0 then i+1 till i<=10

        System.out.print(" * "); //output:-*****

        for(int j=0;j<=k;j++) { //for column j=0 and j=0 then j+1 till j<=10

            if((i==0||i==k)&&j<k) { // if condition for column(i==0 or i=10)and j<10

                System.out.print("*"); // print * if above condition is true
            }
            else if (j==k&&i!=0&&i!=k) { //else above condition not true then j=10
and i is not equal to 0 and i is not equal to k

                System.out.print("*");          //print * if above condition is true
            }
            else{

                System.out.print(" "); // if both condition not true then print space

            }

        }

        System.out.print("\n");

    }

}

}
```

Output:

[illegible]