Program :

package com.onkar;  
  
import java.util.Scanner;  
  
public class Main {  
 public static void main(String[] args) {  
 Scanner s = new Scanner(System.*in*);  
 int n;  
 System.*out*.println("Enter number of elements in array : ");  
 n = s.nextInt();  
  
 int[] arr = new int[n];  
 for(int i=0; i<n; i++){  
 System.*out*.println("Enter element "+i+" : ");  
 arr[i] = s.nextInt();  
 }  
  
 System.*out*.println("Array Elements are : ");  
 for(int i=0; i<n; i++){  
 System.*out*.print(arr[i]+" ");  
 }  
  
 int mid = n/2;  
 for(int i=0; i<=mid; i++){  
 for(int j=i+1; j<=mid; j++){  
 if(arr[i] > arr[j]){  
 int temp = arr[i];  
 arr[i] = arr[j];  
 arr[j] = temp;  
 }  
 }  
 }  
  
 for(int i=mid+1; i<n; i++){  
 for(int j=i+1; j<n; j++){  
 if(arr[i] < arr[j]){  
 int temp = arr[i];  
 arr[i] = arr[j];  
 arr[j] = temp;  
 }  
 }  
 }  
  
 System.*out*.println("\nSorted Array Elements are : ");  
 for(int i=0; i<n; i++){  
 System.*out*.print(arr[i]+" ");  
 }  
 }  
}

Output 1:

"C:\Program Files\Java\jdk-16.0.1\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.1.1\lib\idea\_rt.jar=49737:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.1.1\bin" -Dfile.encoding=UTF-8 -classpath D:\gitdata\Java\_prgrms\Midsem\out\production\Midsem com.onkar.Main

Enter number of elements in array :

6

Enter element 0 :

33

Enter element 1 :

11

Enter element 2 :

1

Enter element 3 :

44

Enter element 4 :

55

Enter element 5 :

66

Array Elements are :

33 11 1 44 55 66

Sorted Array Elements are :

1 11 33 66 55 44

Process finished with exit code 0

Output 2:

"C:\Program Files\Java\jdk-16.0.1\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.1.1\lib\idea\_rt.jar=60629:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.1.1\bin" -Dfile.encoding=UTF-8 -classpath D:\gitdata\Java\_prgrms\Midsem\out\production\Midsem com.onkar.Main

Enter number of elements in array :

7

Enter element 0 :

44

Enter element 1 :

33

Enter element 2 :

22

Enter element 3 :

11

Enter element 4 :

55

Enter element 5 :

66

Enter element 6 :

77

Array Elements are :

44 33 22 11 55 66 77

Sorted Array Elements are :

11 22 33 44 77 66 55

Process finished with exit code 0