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200801199@rajalakshmi.edu.in

NPTEL (https://swayam.gov.in/explorer?ncCode=NPTEL) » Problem Solving Through Programming In C (course)

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Course outline

- How does an NPTEL online course work? ()
- Week 0 : ()
- Week 1 ()
- Week 2 ()
- Week 3 ()
- Week 4 ()
- Week 5 ()
- Week 6 ()
- Week 7 ()

Week 10 : Programming Assignment 04

Due on 2023-10-05, 23:59 IST

Write a C program to sort a 1D array using pointer by applying Bubble sort technique.

Sample Test Cases

	Input	Output
Test Case 1	7 70 40 80 10 200 30 60	10 30 40 60 70 80 200
Test Case 2	6 -10 90 30 20 -100 50	-100 -10 20 30 50 90

The due date for submitting this assignment has passed.

Assignment submitted on 2023-10-05, 21:43 IST

Your last recorded submission was :

```
1 #include<stdio.h>
2 void sort(int *a, int n);
3 int main()
4 {
5     int a[20];
```

Week 8 ()

Week 9 ()

Week 10 ()

Week 11 ()

Week 12 ()

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Problem Solving Session - July 2023 ()

```
    int n,i;
    scanf("%d",&n); // Enter number of elements to sort is taken from test ca

    for(i=0;i<n;i++)
    {
        scanf("%d",&a[i]); // The elements of the array is taken from the tes
    }

sort(a, n); // Calling the sorting function

    //Printing the sorted array
    for(i=0;i<n;i++)
    {
        printf("%d\n",a[i]);
    }
   return 0;
}
void sort(int *a, int n)
{
    int ii,temp,j2;
    for(ii=1;ii < n;ii++)
    {
        for(j2=0;j2  < n-ii;j2++)
        {
           if(*(a+j2) >= *(a+j2+1))
           {
              temp = *(a+j2);
              *(a+j2)= *(a+j2+1);
              *(a+j2+1)= temp;
           }
        }
    }
}
```

Sample solutions (Provided by instructor)

```
#include<stdio.h>
void sort(int *a, int n);
int main()
{
    int a[20];
    int n,i;
    scanf("%d",&n); // Enter number of elements to sort is taken from test ca

    for(i=0;i<n;i++)
    {
        scanf("%d",&a[i]); // The elements of the array is taken from the tes
    }

sort(a, n); // Calling the sorting function

    //Printing the sorted array
    for(i=0;i<n;i++)
    {
        printf("%d\n",a[i]);
    }
   return 0;
}
void sort(int *a, int n)
{
    int i,temp,j;
    for(i=1;i<n;i++)
    {
        for(j=0;j<n-i;j++)
        {
           if(*(a+j)>=*(a+j+1))
        {
            temp = *(a+j);
            *(a+j)= *(a+j+1);
            *(a+j+1)= temp;
        }
        }
    }
```

```
38 }
```