C Programming

**28/11/2023 Bubble sort**

#include<stdio.h>

int main()

{

int i,j,num,temp;//Run two loops nested in one another.

scanf("%d",&num);

int a[num];

printf("enter the number\n");

for(i=0;i<num;i++) //The outer loop will run from i = 0 to i < n – 1, where n is the number of elements in the list.

{

scanf("%d",&a[i]);

}

for(i=0;i<num;i++)

{

for(j=0;j<num-1-i;j++)//The inner loop will run from j = 0 to j < n – i – 1. It is because, after each iteration of the outer loop,

// one element at the end (or at the start if the order is decreasing order) will be in its right place so we can leave it as it is.

{

if(a[j]>a[j+1])//n the inner loop, we will check if the arr[ j ] > arr[ j + 1 ].If it’s true, then we will swap places of these elements.If false, we will continue to the next iteration.

{

temp=a[j];

a[j]=a[j+1];

a[j+1]=temp;

}

}

}

for(i=0;i<num;i++)

{

printf("%d\n",a[i]);

}

}

**29/11/2023 Reverse of an array**

#include<stdio.h>

#define MAX 50

void main()

{

int arr[MAX],n,i,temp;

printf("enter size of array:");

scanf("%d",&n);

printf("enter the number\n");

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

{

scanf("%d",&arr[i]);

}

for(i=0;i<n/2;i++)

{

temp=arr[i];

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

arr[n-i-1]=temp;

}

printf("\n array after reversing:\n");

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

{

printf("%d",arr[i]);

}

}

**1/12/2023 Structure\_of \_student\_data**

#include<stdio.h>

struct student

{

int rollno;

char subtopicdefination[20];

};

int main()

{

struct student s[10];

int i,n;

printf("how many studentd");

scanf("%d",&n);

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

{

printf("student%d:rollno and name",i);

scanf("%d%s",&s[i].rollno,s[i].subtopicdefination);

}

printf("you have entered\n");

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

{

printf("student=%d:Rollno=%d name=%s\n",i,s[i].rollno,s[i].subtopicdefination);

}

}