

//09:program to perform bubble sort

```
#include<stdio.h>

#include<stdlib.h>

#include<time.h>

void bubble()
{
    int i,j,n,a[10],t;
    printf("ENTER THE LIMIT\n");
    scanf("%d",&n);
    printf("ENTER %d ELEMENTS\n",n);
    for(i=0;i<n;i++)
        scanf("%d",&a[i]);
    for(i=0;i<n-1;i++)
    {
        for(j=0;j<n-i-1;j++)
        {
            if(a[j]>a[j+1])
            {
                t=a[j];
                a[j]=a[j+1];
                a[j+1]=t;
            }
        }
    }
    printf("THE SORTED ELEMENTS ARE\n");
    for(i=0;i<n;i++)
        printf("%d\t",a[i]);
}

int main()
```

```

{
    clock_t start,end;

    double t;

    start=clock();

    bubble();

    end=clock();


    t=(double)(end-start)/CLOCKS_PER_SEC;

    printf("\nEXECUTION TIME : %f\n",t);

    return 0;
}

```

Output:


 "D:\Users\User\3D Objects\@SUB Access\Dock 1\2nd Yr\4th Sem\Lab\DAA\Programs\09_Bubble sort\pgm\Bubble sort\bin\Debug\Bubble sort.exe"

```

ENTER THE LIMIT
6
ENTER 6 ELEMENTS
32 2312 43 546 23 121
THE SORTED ELEMENTS ARE
23    32    43    121    546    2312
EXECUTION TIME : 18.640000

Process returned 0 (0x0)   execution time : 19.215 s
Press any key to continue.

```

 "D:\Users\User\3D Objects\@SUB Access\Dock 1\2nd Yr\4th Sem\Lab\DAA\Programs\09_Bubble sort\pgm\Bubble sort\bin\Debug\Bubble sort.exe"

```

ENTER THE LIMIT
7
ENTER 7 ELEMENTS
90 764 32 2323 232 1 2
THE SORTED ELEMENTS ARE
1    2    32    90    232    764    2323
EXECUTION TIME : 21.839000

Process returned 0 (0x0)   execution time : 21.975 s
Press any key to continue.

```