

```
#include <stdio.h>
```

```
void insertion (int x[], int n)
```

```
{  
    int i, j, no;  
    for (i = 0; i < n - 1; i++)  
    {  
        no = x[i+1];  
        for( j = i; j >= 0; j--)  
            if( no < x[j])  
                x[j+1] = x[j];  
        else break;  
        x[j+1] = no;  
    }  
    return;
```

```
}
```

```
void main()
```

```
{  
    int i ,n, a[10];  
    //int a[] = {40, 70, 20, 90, 100, 80, 10, 60, 30, 50};  
    printf("\n enter the number of elements");  
    scanf("%d",&n);
```

```
printf("\n enter the elements");  
for(i=0;i<n;i++)  
{  
    scanf("%d",&a[i]);  
}  
  
printf("The unsorted array is:\n");  
    for(i=0;i<n;++i)  
        printf("%d ",a[i]);  
    printf("\nThe sorted array is:\n");  
    insertion(a, n);  
    for(i = 0; i < n; i++)  
        printf("%d ", a[i]);  
    printf("\n");  
}
```

## Bubble sort

```
#include <stdio.h>
#include <conio.h>
int main()
{
int i, n, temp, j, arr[10];
clrscr();
printf("\n Enter the number of elements in the array : ");
scanf("%d", &n);
printf("\n Enter the elements: ");
for(i=0;i<n;i++)
{
scanf("%d", &arr [i]);
}
for(i=0;i<n;i++)
{
for(j=0;j<n-i-1;j++)
{
if(arr[j] > arr[j+1])
{
temp = arr[j];
arr[j] = arr[j+1];
arr[j+1] = temp;
}
}
}
printf("\n The array sorted in ascending order is :\n");
for(i=0;i<n;i++)
printf("%d\t", arr[i]);
getch();
return 0;
}
```