

INSERTION SORT

```
    /****      Program to Sort an Array using Insertion Sort      ****/  
  
#include <stdio.h>  
  
void insertion_sort();  
int a[50],n;  
  
main()  
{  
    int i;  
  
    printf("\nEnter size of an array: ");  
    scanf("%d", &n);  
  
    printf("\nEnter elements of an array:\n");  
    for(i=0; i<n; i++)  
        scanf("%d", &a[i]);  
  
    insertion_sort();  
  
    printf("\n\nAfter sorting:\n");  
    for(i=0; i<n; i++)  
        printf("\n%d", a[i]);  
  
    getch();  
}  
  
void insertion_sort()  
{  
    int j, k, temp;  
    for(j=1; j<n; j++)  
    {  
        temp = a[j];  
        k = j-1;  
  
        while (k>=0 && a[k]>temp)  
        {  
            a[k+1] = a[k];  
            k--;  
        }  
        a[k+1] = temp;  
    }  
}
```