```c
//write a program for sorting elements by using insertion sort
#include<stdio.h>

//for displaying elements in array
void display(int a[], int n)
{
        int i;
        printf("[ ");
        for (i = 0; i < n; i++)
        {
                printf("%d ,", a[i]);
        }
        printf(" ]\n");
}

//for sorting elements in array
void insert_sort(int a[], int n)
{
        int i, value, hole;

        for (i = 0; i < n; i++)
        {
                value = a[i];
                hole = i;

                printf("For iteration %d :\n", i);
                printf("Hole:%d & Value:%d\n", hole, value);
                while (hole > 0 && a[hole - 1] > value)
                {
                        a[hole] = a[hole - 1];
                        display(a, n);
                        hole--;

                }
                a[hole] = value;
                display(a, n);
        }
}
void main()
{
        int a[20], i, n;

        printf("Please enter the number of element you want to insert\n");
        scanf_s("%d", &n);

        printf("Enter the number of element in Array\n");
        for (i = 0; i < n; i++)
        {
                scanf_s("%d", &a[i]);
        }

        insert_sort(a, n);

        printf("Sorted array is :\n");
        display(a, n);
}
```