

```
1  #include <stdio.h>
2  #include <stdlib.h>
3  #include <time.h>
4
5  int main()
6  {
7      int n=10, i, j, temp, c;
8      int arr[10];
9      printf("<-----INSERTION SORT----->\n");
10     printf("Genrating random nos.:\n");
11     srand(time(0));
12
13     for (c = 0; c < n; c++)
14     {
15         arr[c]=rand()%100 +1;
16         printf("%d\n",arr[c]);
17     }
18     clock_t begin = clock();
19     for (i = 1 ; i < n; i++)
20     {
21         j = i;
22         while ( j > 0 && arr[j-1] > arr[j])
23         {
24             temp      = arr[j];
25             arr[j]     = arr[j-1];
26             arr[j-1]   = temp;
27             j--;
28         }
29     }
30     printf("Sorted list in ascending order:\n");
31     for (i = 0; i <= n - 1; i++)
32     {
33         printf("%d\n", arr[i]);
34     }
35     clock_t end = clock();
36     double time_spent = (double) (end - begin) / CLOCKS_PER_SEC;
37     printf("\n\nEXECUTION TIME : %.10fseconds\n", time_spent);
38
39     return 0;
40 }
41
```

"C:\web developement(html.css.js)\insertion sort2.exe"

<-----INSERTION SORT----->

Genrating random nos.:

7

83

10

48

7

42

12

90

50

21

Sorted list in ascending order:

7

7

10

12

21

42

48

50

83

90

EXECUTION TIME : 0.000000000seconds

Process returned 0 (0x0) execution time : 1.878 s

Press any key to continue.