

Code:-

```
1  #include<stdio.h>
2  void insertionSort(int arr[], int size);
3
4
5  int main(){
6
7      int arr[] = {30,10,50,20,40};
8      int size = sizeof(arr)/sizeof(arr[0]);
9
10     printf("\nBefore Sorting: \n");
11     for (int i = 0; i < size; i++) {
12         printf("%d ", arr[i]);
13     }
14
15     insertionSort(arr, size);
16
17     printf("\n\nAfter Sorting: \n");
18     for (int i = 0; i < size; i++) {
19         printf("%d ", arr[i]);
20     }
21
22
23     return 0;
24 }
25
26
27 void insertionSort(int arr[], int size){
28     for(int curr = 1; curr < size; curr++){
29         int prev = curr - 1;
30         int key = arr[curr];
31         while (prev >= 0 && arr[prev] > key)
32         {
33             arr[prev + 1] = arr[prev];
34             prev--;
35         }
36         arr[prev + 1] = key;
37
38     }
39
40
41
42 }
```

Output:-

```
PROBLEMS 2 OUTPUT DEBUG CONSOLE TERMINAL PORTS SPELL CHECKER 2
> gcc insertionSort.c -o insertionSort && ./insertionSort
>
> ^C
```

```
admin@DESKTOP-72HUHIM MINGW64 /e/A0A (main)
```

```
• $ gcc insertionSort.c -o insertionSort
```

```
admin@DESKTOP-72HUHIM MINGW64 /e/A0A (main)
```

```
• $ ./insertionSort.exe
```

```
Before Sorting:
```

```
30 10 50 20 40
```

```
After Sorting:
```

```
10 20 30 40 50
```

```
admin@DESKTOP-72HUHIM MINGW64 /e/A0A (main)
```

```
• $
```