






INSERTION SORT

PROGRAM

```
main.c    Share  Run
```

```
1  #include <stdio.h>
2
3  void insertionSort(int arr[], int n) {
4      for (int i = 1; i < n; i++) {
5          int key = arr[i];
6          int j = i - 1;
7          while (j >= 0 && arr[j] > key) {
8              arr[j + 1] = arr[j];
9              j--;
10         }
11         arr[j + 1] = key;
12     }
13 void printArray(int arr[], int n) {
14     for (int i = 0; i < n; i++)
15         printf("%d ", arr[i]);
16     printf("\n");
17 }
18 int main() {
19     int arr[] = {9, 5, 1, 4, 3};
20     int n = sizeof(arr) / sizeof(arr[0]);
21     printf("Original array:\n");
22     printArray(arr, n);
23     insertionSort(arr, n);
24     printf("Sorted array:\n");
25     printArray(arr, n);
26     return 0;
27 }
28
```

OUTPUT

```
Output 
```

```
Original array:
9 5 1 4 3
Sorted array:
1 3 4 5 9

=== Code Execution Successful ===
```