```c
//Insertion Sort


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#include <stdio.h>
#include <math.h>


void insertionSort(int arr[], int N) {
  for (int i = 1; i < N; i++) {
     int key = arr[i];
     int j = i - 1;


     // Move elements greater than key to one position ahead
     while (j >= 0 && arr[j] > key) {
        arr[j + 1] = arr[j];
        j = j - 1;
     }


     arr[j + 1] = key;  // Place key in correct position
  }
}


int main() {
  int arr[] = {12, 11, 13, 5, 6};
  int N = sizeof(arr) / sizeof(arr[0]);


  printf("Unsorted array: ");
  for (int i = 0; i < N; i++) {
     printf("%d ", arr[i]);
  }
  printf("\n");


  insertionSort(arr, N);


  printf("Sorted array: ");
  for (int i = 0; i < N; i++) {
     printf("%d ", arr[i]);
  }
  printf("\n");


  return 0;
```

}