Insertion sort is a simple sorting algorithm that works the way we sort playing cards in our hands. Each time we take a new card we put it in the right place in our hand.

void insertionSort(int arr[], int n)

{

int i, key, j;

for (i = 1; i < n; i++)

{

key = arr[i];

j = i - 1;

// Move elements of arr[0..i-1],

// that are greater than key, to one

// position ahead of their

// current position

while (j >= 0 && arr[j] > key)

{

arr[j + 1] = arr[j];

j = j - 1;

}

arr[j + 1] = key;

}

}

// A utility function to print an array

// of size n

void printArray(int arr[], int n)

{

int i;

for (i = 0; i < n; i++)

cout << arr[i] << " ";

cout << endl;

}

// Driver code

int main()

{

int arr[] = { 12, 11, 13, 5, 6 };

int N = sizeof(arr) / sizeof(arr[0]);

insertionSort(arr, N);

printArray(arr, N);

return 0;

}