#include <stdio.h>

#include <stdlib.h>

struct node {

int data;

struct node \*next;

};

struct node \*head = NULL;

void insertNode(int data) {

struct node \*newNode = (struct node \*)malloc(sizeof(struct node));

if (newNode == NULL) {

printf("Memory allocation failed.\n");

exit(1);

}

newNode->data = data;

newNode->next = NULL;

if (head == NULL) {

head = newNode;

} else {

struct node \*temp = head;

while (temp->next != NULL) {

temp = temp->next;

}

temp->next = newNode;

}

}

void displayList() {

struct node \*temp = head;

while (temp != NULL) {

printf("%d ", temp->data);

temp = temp->next;

}

printf("\n");

}

void sortList() {

struct node \*current = head, \*index = NULL;

int temp;

if (head == NULL) {

return;

} else {

while (current != NULL) {

index = current->next;

while (index != NULL) {

if (current->data > index->data) {

temp = current->data;

current->data = index->data;

index->data = temp;

}

index = index->next;

}

current = current->next;

}

}

}

int main() {

int n, data;

printf("Enter the number of elements: ");

scanf("%d", &n);

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

printf("Enter element %d: ", i + 1);

scanf("%d", &data);

insertNode(data);

}

printf("Original list: ");

displayList();

sortList();

printf("Sorted list: ");

displayList();

return 0;