#include <stdio.h>

void selectionSort(int arr[], int n) {

int i, j, minIndex, temp;

for (i = 0; i < n - 1; i++) {

minIndex = i;

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

if (arr[j] < arr[minIndex]) {

minIndex = j;

}

}

if (minIndex != i) {

temp = arr[i];

arr[i] = arr[minIndex];

arr[minIndex] = temp;

}

}

}

void printArray(int arr[], int size) {

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

printf("%d ", arr[i]);

}

printf("\n");

}

int main() {

int arr[] = {64, 25, 12, 22, 11};

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

printf("Unsorted array: ");

printArray(arr, n);

selectionSort(arr, n);

printf("Sorted array: ");

printArray(arr, n);

return 0;

}

Bubble sort

#include <stdio.h>

void bubbleSort(int arr[], int n) {

int i, j, temp;

for (i = 0; i < n - 1; i++) {

for (j = 0; j < n - i - 1; j++) {

if (arr[j] > arr[j + 1]) {

// Swap arr[j] and arr[j + 1]

temp = arr[j];

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

arr[j + 1] = temp;

}

}

}

}

void printArray(int arr[], int size) {

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

printf("%d ", arr[i]);

}

printf("\n");

}

int main() {

int arr[] = {64, 34, 25, 12, 22, 11, 90};

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

printf("Unsorted array: ");

printArray(arr, n);

bubbleSort(arr, n);

printf("Sorted array: ");

printArray(arr, n);

return 0;

}