1. Selection sort

Code:

#include <stdio.h>

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

int i, j, min\_index, temp;

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

min\_index = i;

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

if (arr[j] < arr[min\_index])

min\_index = j;

}

temp = arr[min\_index];

arr[min\_index] = arr[i];

arr[i] = temp;

}

}

int main() {

int arr[100], n, i;

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

scanf("%d", &n);

printf("Enter %d elements:\n", n);

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

scanf("%d", &arr[i]);

}

selectionSort(arr, n);

printf("Array after sorting: ");

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

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

}

printf("\n");

return 0;

}

Output:

Enter the number of elements in the array: 10

Enter 10 elements:

8 3 7 4 1 7 0 7 4 3

Array after sorting: 0 1 3 3 4 4 7 7 7 8

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Process exited after 15.23 seconds with return value 0

Press any key to continue . . .

