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1/11/17

Lab 00 Sumbission

**Assignment 1:**

-bash-4.3$ mkdir lab1

-bash-4.3$ cd lab1/

-bash-4.3$ vim hello.cpp

-bash-4.3$ g++ hello.cpp -o hello

-bash-4.3$ ls

hello hello.cpp

-bash-4.3$ ./hello

Hello World!

-bash-4.3$

**Assignment 2:**

"array.cpp"

<begin>

#include <iostream>

#include <time.h>

#include <stdlib.h>

using namespace std;

void PrintArray(int v[], int size)

{

cout << "[";

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

cout << v[i];

if (i < size - 1) {

cout << ", ";

}

}

cout << "]";

}

void RandomArray(int v[], int size)

{

int value;

srand(time(NULL));

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

value = rand() % 100;

v[i] = value;

}

// PrintArray(v, size);

}

void SortArray(int v[], int size)

{

int i, j, index;

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

index = i;

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

if (v[j] < v[index]) {

index = j;

}

}

if (index != i) {

swap(v[i], v[index]);

}

}

}

int main()

{

int v[10];

RandomArray(v, 10);

cout << "The initial array is: ";

PrintArray(v, 10);

cout << endl;

SortArray(v, 10);

cout << "The sorted array is: ";

PrintArray(v, 10);

cout << endl;

return 0;

}

<end>

"shell commands and program output"

user410@localhost:~/lab1$ vim array.cpp

user410@localhost:~/lab1$ g++ array.cpp -o array

user410@localhost:~/lab1$ ./array

The initial array is: [45, 87, 17, 69, 39, 59, 44, 65, 19, 57]

The sorted array is: [17, 19, 39, 44, 45, 57, 59, 65, 69, 87]

user410@localhost:~/lab1$

**Assignment 3:**

"str\_array.cpp"

<begin>

#include <iostream>

#include <time.h>

#include <stdlib.h>

#include <string>

using namespace std;

void PrintArray(string v[], int size)

{

cout << "[";

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

cout << v[i];

if (i < size - 1) {

cout << ", ";

}

}

cout << "]";

}

void ReadStrings(string v[], int size)

{

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

cout << "Please enter string #" << i << ": ";

cin >> v[i];

}

}

void SortStringArray(string v[], int size)

{

int i, j, index;

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

index = i;

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

if (v[j].compare(v[index]) < 0) {

index = j;

}

}

if (index != i) {

swap(v[i], v[index]);

}

}

}

int main()

{

string v[10];

ReadStrings(v, 10);

cout << "The initial array is: ";

PrintArray(v, 10);

cout << endl;

SortStringArray(v, 10);

cout << "The sorted array is: ";

PrintArray(v, 10);

cout << endl;

return 0;

}

<end>

"shell commands and output"

user410@localhost:~/lab1$ vim str\_array.cpp

user410@localhost:~/lab1$ g++ str\_array.cpp -o str\_array

user410@localhost:~/lab1$ ./str\_array

Please enter string #0: asdasssd

Please enter string #1: nsfjgsfg

Please enter string #2: sdgertayh

Please enter string #3: aewewara

Please enter string #4: szvzcxgdr

Please enter string #5: xcbxcmnfd

Please enter string #6: azserawty

Please enter string #7: zxxbfgd

Please enter string #8: yrtewdfh

Please enter string #9: ftkiyfi

The initial array is: [asdasssd, nsfjgsfg, sdgertayh, aewewara, szvzcxgdr, xcbxcmnfd, azserawty, zxxbfgd, yrtewdfh, ftkiyfi]

The sorted array is: [aewewara, asdasssd, azserawty, ftkiyfi, nsfjgsfg, sdgertayh, szvzcxgdr, xcbxcmnfd, yrtewdfh, zxxbfgd]

user410@localhost:~/lab1$

user410@localhost:~/lab1$