22F-3298

M.QasimNaveed

/\*Problem 1: | Array and file handling\*/

#include <iostream>

#include<fstream>

using namespace std;

void selectionSort(int arr[], int n); //selection sort function

void bubble\_sort(int array[], int n); //Bubble Sort function

void Array\_Printing(int arr[], int size); //Print Array Function

void file\_handling(int array[], int size);

void linearSearch(int array[], int size);

int main()

{

int array[10];//= {66, 26, 32, 24, 17 };

cout << "Enter 10 three digit numbers in array : " << endl;

for (int i = 0; i < 10; i++)

{

cin >> array[i];

if (array[i] <= 99 || array[i] > 999)

{

cout << "Again Enter three digit number : ";

cin >> array[i];

}

}

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

cout << "Array before Sorting : " << endl;

Array\_Printing(array, n);

selectionSort(array, n);

cout << "1\_ Selection Sorted array : \n";

Array\_Printing(array, n);

cout << endl << endl;

bubble\_sort(array, n); //Bubble Sort function

cout << "2\_ Bubble Sorted array : \n";

Array\_Printing(array, n);

file\_handling(array, n);

linearSearch(array,n);

return 0;

}

void selectionSort(int arr[], int n)

{

int i, j, min\_element;

int temp = 0;

// One by one move boundary of

// unsorted subarray

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

{

min\_element = i; // Find the minimum element in

// unsorted array

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

{

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

{

min\_element = j;

}

}

if (min\_element != i)

{

temp = arr[i];

arr[i] = arr[j];

arr[j] = temp;

}

}

}

void bubble\_sort(int array[], int n)

{

int temp = 0;

for (int i = 0; i < 5; i++)

{

for (int j = i + 1; j < 5; j++)

{

if (array[j] < array[i])

{

temp = array[i];

array[i] = array[j];

array[j] = temp;

}

}

}

}

void Array\_Printing(int arr[], int size)

{

int i;

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

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

cout << endl;

}

void file\_handling(int array[], int size)

{

ofstream myfile;

myfile.open("num.txt", ios::out);

if (!myfile)

{

cout << "Error while creating the file";

}

else

{

cout << "File created successfully";

for (int i = 0; i < 10; i++)

{

cout << array[i];

}

myfile.close();

}

}

/\*Problem 2: | Array and file handling\*/

void linearSearch(int array[],int size)

{

ifstream myfile;

myfile.open("num.txt", ios::in);

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

{

read >> array[i];

}

myfile.close();

}