main.cpp

#include <vector>

#include<algorithm>

#include<numeric>//for accumulator operations

#include <iostream>

using namespace std;

void display(vector<double> &v) {

for (vector<double>::iterator i = v.begin();

i != v.end();

++i)

{

cout << \*i << " ";

}

cout << endl;

}

int main()

{ // an array of doubles

double arr[] = { 1.1, 2.2, 3.3, 2.2, 4.4 };

//Determine the array size

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

// initialize vector v1 to array arr

vector<double> v1(arr, arr + arrSize);

//Display the contents of vector v1

cout << "Display vector v1: "<< endl;

display(v1);

// Sorting the Vector in Ascending order

sort(v1.begin(), v1.end());

//Display the content of vector v1 after sorting

cout << "After sorting: " << endl;

display(v1);

// Reversing the Vector v1

reverse(v1.begin(), v1.end());

//Display the content of vector v1

cout << "After reversing: " << endl;

display(v1);

//Display the maximum element of vector v1

cout << "Maximum element of vector v1: " << \*max\_element(v1.begin(),v1.end()) << endl;

//Display the minimum element of vector v1

cout << "Minimum element of vector v1: " << \*min\_element(v1.begin(),v1.end()) <<endl;

//Display the accumulation of all elements in vector v1

// Starting the summation from 0

double sum1 = accumulate(v1.begin(), v1.end(), 0.0);

cout << "Accumulation of all elements in vector v1: " << sum1 << endl;

// Counts the occurrences of 2.2 from 1st to last element

//Display the counts

const int count\_num = count(v1.begin(),v1.end(), 2.2);

cout << "The occurrences of 2.2 is: " << count\_num << endl;

// Delete second element of vector

v1.erase(v1.begin() + 1);

//Display the v1 after erasing the element

cout << "After deleting: " << endl;

display(v1);

//Remove the duplicate occurrences

v1.erase(unique(v1.begin(), v1.end()), v1.end());

cout << "After removing duplicates: " << endl;

display(v1);

return 0;

}

