Correlation Between Sequences

There are two sequence generators G1 and G2 which generates floating point numbers. Both the generators have a small flaw and generates ‘n+1’ numbers when ‘n’ numbers need to be generated. Two sequences are said to be ‘Equal’ when the elements generated by them are same and the sequences are said to be ‘Good’ if there is a constant difference between the corressponding elements and the sequences are ‘Bad’ when it is not Equal and not Good.

Given two sequences generated by G1 and G2 and the positions of the erroneous elements, write a C++ code to remove the errpneous elements and check if the sequences are Equal, Good or Bad.

For example, if the sequences are 11.1, 12.5. 15.6, 17.01, 89.21, 35.6, 55.71 and 11.1, 13.45, 12.5, 15.6, 17.01, 35.6, 55.71 and the erroneous positions are 5 and 2 then the correct sequence of elements generated are 11.1, 12.5, 15.6, 17.01, 35.6, 55.71 and 11.1, 12.5, 15.6, 17.01, 35.6, 55.71, the sequences are ‘Equal’.

Hint

This problem can be quickly solved with vector in STL. STL is Standard Template Library that has got generic functions, classes and algorithms.

- To use vector, add #include<vector>
- We can create object and array of objects for vector
- size() - Number of elements in a vector can be found
- [] - can be used to random access elements of a vector
- == - Returns true if the elements of two vectors are same and false otherwise
- begin() - will give reference to the first element in the vector which can be stored in an iterator
- end() - will give reference to one position next to last element in the vector which can be stored in an iterator
- iterator for a integer vector can be declared as vector<int>::iterator it
- +, -, ++, --, <, >, ==, != - operators that can be used with iterators
- erase(pos) – Removes the element at the given iterator position pos

Sample code

```
#include<iostream>

using namespace std;

#include<vector>

int main()

{

vector<int> v;

v.push_back(11);

v.push_back(12);

vector<int>::iterator it =v.begin();
```

Problem Statistics

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Solved By: 10

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```
//to delete data at 5th position

v1.erase(it+4);

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

{

cout<<v[i]<<endl;

}

//to check if elements of two vectors are same

if(v1==v)

cout<<"Same";

}
```

Input Format

First line contains the number of elements generated by the sequence generators, n+1

Next line contains the elements generated by G1 separated by a space

Next line contains the elements generated by G2 separated by a space

Next line contains the position of erroneous element in the sequence generated by G1

Next line contains the position of erroneous element in the sequence generated by G2

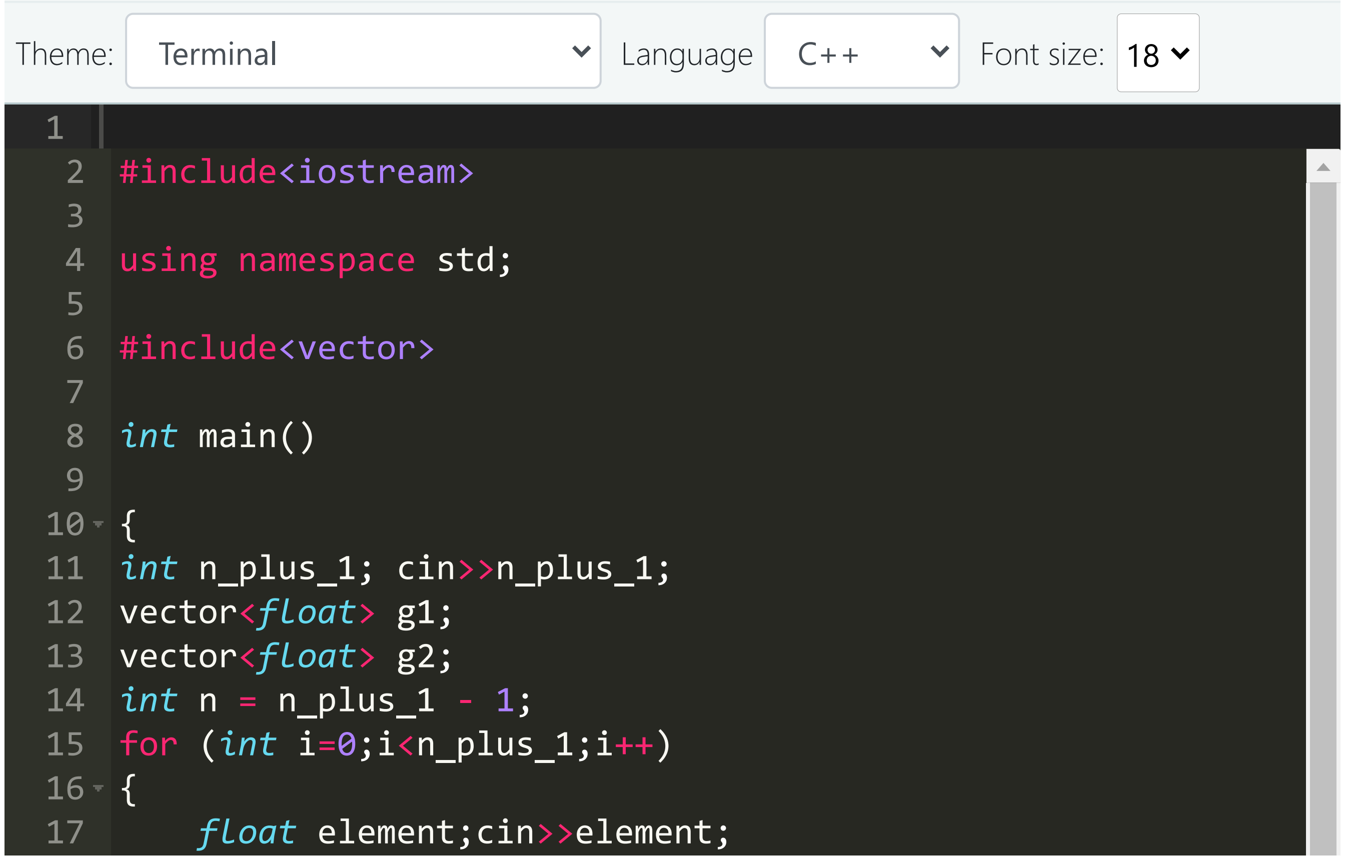
Output Format

First line should contain elements generated by G1 after removing erroneous element

Next line should contain elements generated by G2 after removing erroneous element

Print if the sequences are Equal or Good or Bad

Note: In the expected output there is a space at the end of the sequences



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```

#include<iostream>

using namespace std;

#include<vector>

int main()

{
int n_plus_1; cin>>n_plus_1;
vector<float> g1;
vector<float> g2;
int n = n_plus_1 - 1;
for (int i=0;i<n_plus_1;i++)
{
    float element;cin>>element;
    g1.push_back(element);
```

□ Use custom I/O

Run Code Save Code Pause Test

Status:

```
Success your code has passed all test cases!!
```