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/*This programme allows the user to enter a sequence of integers with unknown length terminated by
0 */
#include<iostream>
using namespace std;

void main() {

    int index = 0;
    int size = 1; // Size of the array at a given iteration
    int input = 1 ;

    int* pdynArray=nullptr; // Declaring the dynamic array
    int* ptempArray=nullptr; // Declaring the temporary array

    pdynArray = new int[size]; // Setting the size of the array to 1

    while (input) {

        cout << "Enter an integer: " << "\n";
        cin >> input;

        pdynArray[index]=input;

        size++;
        index++;

        ptempArray = new int[size]; // Allocating (size + 1) for extension

        // Copying the content of the dynamic array to the temporary array
        for (unsigned int i = 0; i < size-1; i++) ptempArray[i] = pdynArray[i];

        // Delete the dynamic array and rename the temporary array to be the new dynamic
array
        delete[] pdynArray;
        pdynArray = nullptr;
        pdynArray = ptempArray;
        ptempArray = nullptr;

    };

    // Printing the integers
    cout << "Typed integers were" << "\n";
    for (unsigned int i = 0; i < size-1; i++) cout << pdynArray[i] << " ";
    cout << "\n";

    system("pause");

};
```