

Answer on Question #59488

Main.cpp

```
#include <iostream>
#include <fstream>

#define ARRAY_SIZE 10000

using namespace std;

//-----
// Function prototypes
//-----
void readNumbers(int *numberArray, int *counter);
int getLowest(int *numberArray, int count);
int getHighest(int *numberArray, int count);
int getSum(int *numberArray, int count);
double getAverage(int *numberArray, int count);

int main()
{
    int numberArray[ARRAY_SIZE];
    int count = 0;
    readNumbers(numberArray, &count);
    cout << numberArray[3] << "\n" << count << endl;;
    cout << "Lowest: " << getLowest(numberArray, count) << endl;
    cout << "Highest: " << getHighest(numberArray, count) << endl;
    cout << "Sum: " << getSum(numberArray, count) << endl;
    cout << "Average: " << getAverage(numberArray, count) << endl;
    system("pause");
    return 0;
}

//-----
// Read numbers from file and save it in array
//-----
void readNumbers(int *numberArray, int *counter)
{
    int number = 0;
    ifstream readfile("numbers.txt");

    if (readfile.is_open())
    {
        readfile >> numberArray[(*counter)++];
        cout << numberArray[(*counter) - 1] << endl;
        numberArray[1] = number;
        while (!readfile.eof())
        {
            readfile >> numberArray[(*counter)++];
```

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        cout << numberArray[(*counter) - 1] << endl;
    }
}
readfile.close();
}
//-----
// Search and return the lowest value in array
//-----
int getLowest(int *numberArray, int count)
{
    int min = numberArray[0];
    for (int i = 1; i < count; i++)
    {
        if (numberArray[i] < min)
        {
            min = numberArray[i];
        }
    }
    return min;
}
//-----
// Search and return the highest value in array
//-----
int getHighest(int *numberArray, int count)
{
    int max = numberArray[0];
    for (int i = 1; i < count; i++)
    {
        if (numberArray[i] > max)
        {
            max = numberArray[i];
        }
    }
    return max;
}
//-----
// Calculate sum of the all elements in array
//-----
int getSum(int *numberArray, int count)
{
    int sum = 0;
    for (int i = 0; i < count; i++)
    {
        sum += numberArray[i];
    }
    return sum;
}
//-----
// Calculate the average value of the all elements in array

```

```
//-----  
double getAverage(int *numberArray, int count)  
{  
    double sum = 0;  
    for (int i = 0; i < count; i++)  
    {  
        sum += numberArray[i];  
    }  
    return sum/count;  
}
```

numbers.txt

12
32
43
2
3
1
-1
213
23
18
22
53
34