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/* Syuta Sugawara (Syuta)
 CIS 22A Winter 2018
 Laboratory Assignment G
 Problem G1

 This program reads file1 that has several integers and then prints
the the number of integers , the sum of the integers ,the smallest
integer,the largest integer and the average of the integers.
 */

#include <iostream>
#include <fstream>

using namespace std;
int main(void) {
    ifstream infile;

    int number;
    double count=0;
    double sum=0;
    double average;
    int max=0;
    int min;

    infile.open("/Users/sugawarasyuta/Desktop/Arranging for enrollment
in De anza/c/file1.txt");

    if (!infile)
    {
        cout << "File open failure!";
    }
    infile>> min;
    infile.close();

    infile.open("/Users/sugawarasyuta/Desktop/Arranging for enrollment
in De anza/c/file1.txt");

    if (!infile)
    {
        cout << "File open failure!";
    }

    while(infile>>number){

        if(max<number){
            max=number;
        }

        if(min>number){
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```
            min=number;
        }

        sum += number;
        count++;

    }
    infile.close();

    average = (sum / count);

    cout<<"The number of integers :" <<count<<endl;
    cout<<"The sum of the integers : "<<sum<<endl;
    cout<<"The smallest integer : " <<min<<endl;
    cout<<"The largest integer : "<<max<<endl;
    cout<<"The average of the integers : " << average<<endl;

    return 0;
}

/*
 Execution results:
 The first test

 The number of integers :7
 The sum of the integers : 141
 The smallest integer : 9
 The largest integer : 33
 The average of the integers : 20.1429

 The second test

 The number of integers :8
 The sum of the integers : 181
 The smallest integer : 9
 The largest integer : 40
 The average of the integers : 22.625

 */
```

```
/* Syuta Sugawara (Syuta)
 CIS 22A Winter 2018
 Laboratory Assignment G
 Problem G2

 This program reads two integers , computes the sum of the integers by
using a sum function and prints the integers and the sum of the
integers.  */

#include <iostream>
using namespace std;

int sum(int num1,int num2);

int main(void) {

    int value1, value2;
    int total;

    cout << "Enter value1 :" ;
    cin >> value1 ;
    cout << "Enter value2 :";
    cin >> value2 ;

    total = sum (value1,value2);

    cout<< "The value1 is " <<value1<<'.'<<endl<<"The value2 is
    "<<value2<<'.'<< endl <<"The sum of the value1 and the value2 is
    "<< total<< endl;

    cout << "Enter value1 :" ;
    cin >> value1 ;
    cout << "Enter value2 :";
    cin >> value2 ;

    total = sum (value1,value2);

    cout<< "The value1 is " <<value1<<'.'<<endl<<"The value2 is
    "<<value2<<'.'<<endl
    <<"The sum of the value1 and the value2 is "<< total<<endl;

    return 0;
}
```

```
//*********************************************************************
// Definition of function sum.                                        *
// It uses two integers and returns the sum of the integers.          *
//*********************************************************************

int sum(int num1,int num2){

   int result;

   result = num1 + num2;

   return result;
   }

/*
 Execution results:

 The first test is shown below.

 Enter value1 :3
 Enter value2 :4
 The value1 is 3.
 The value2 is 4.
 The sum of the value1 and the value2 is 7
 Enter value1 :5
 Enter value2 :49
 The value1 is 5.
 The value2 is 49.
 The sum of the value1 and the value2 is 54
 */
```

```
/* Syuta Sugawara (Syuta)
 CIS 22A Winter 2018
 Laboratory Assignment G
 Problem G3
 This program reads three integers and then prints the sum of the
integers ,the average of the integers and
 the smallest integer by using several functions.
 */

#include <iostream>
#include <iomanip>

using namespace std;
double findSum(double num1,double num2,double num3);
double findAverage(double totalSum,double countNum);
double findSmallest(double anum,double bnum,double cnum);

int main(void) {
    double number1;
    double number2;
    double number3;
    double total;
    double ave;
    int count= 0;
    double smallest;

    cout << "Enter number1 : ";
    cin >> number1 ;
    if(number1){
        count++;
    }

    cout << "Enter nubmer2 : ";
    cin >> number2 ;
    if(number2){
        count++;}

    cout << "Enter number3 : ";
    cin >> number3 ;
    if(number3){
        count++;}

    total = findSum(number1, number2,number3);

    ave = findAverage (total,count);

    smallest = findSmallest(number1,number2,number3);

    cout<<showpoint<<endl;
```

```
    cout<<setprecision(2)<<fixed;
    cout<<"Results :"<<endl;
    cout<<setw(15)<<left<<"First
number"<<setw(6)<<right<<number1<<endl;
    cout<<setw(15)<<left<<"Second
number"<<setw(6)<<right<<number2<<endl;
    cout<<setw(15)<<left<<"Third
number"<<setw(6)<<right<<number3<<endl;
    cout<<setw(15)<<left<<"Total"<<setw(6)<<right<<total<<endl;
    cout<<setw(15)<<left<<"Average"<<setw(6)<<right<< ave <<endl;
    cout<<setw(15)<<left<<"Smallest"<<setw(6)<<right<<smallest<<endl;

    return 0;
}

//*************************************************************************
// Definition of function findSum.                                        *
// It outputs the sum of the integers.                                    *
//*************************************************************************

double findSum(double num1,double num2,double num3)
{   double resultSum;

    resultSum = num1 + num2 + num3;

    return resultSum;
}

//*************************************************************************
// Definition of function findAverage.                                    *
// It outputs the average of the sum.                                     *
//*************************************************************************

double findAverage(double totalSum,double countNum){
    double resultAve;

    resultAve = (totalSum /countNum) ;

    return resultAve;

}

//*************************************************************************
// Definition of function findAverage.                                    *
// It outputs the smallest of the integers.                               *
//*************************************************************************

double findSmallest(double anum,double bnum,double cnum){
    double resultSmall;
```

```
    resultSmall= anum;

    if(resultSmall>bnum){
        resultSmall = bnum;
    }
    if(resultSmall>cnum){
        resultSmall=cnum;
    }
    return resultSmall;
}


/*
 Execution results:

 The first test

 Enter number1 : 37.144
 Enter nubmer2 : 2.4144
 Enter number3 : 19

  Results :
  First  number   37.14
  Second number    2.41
  Third  number   19.00
  Total           58.56
  Average         19.52
  Smallest         2.41


 The second test

 Enter number1 :  4.23
 Enter nubmer2 :  5.78
 Enter number3 :  6.21

  Results :
  First  number    4.23
  Second number    5.78
  Third  number    6.21
  Total           16.22
  Average          5.41
  Smallest         4.23
 */
```