

## Main.cpp

```
#include "MyReader.h"
#include <iostream>

using namespace std;

int main()
{
    myReader mr;
    int total;
    double average;

    mr.read();
    mr.output();
    mr.doubleNums();
    mr.sort();
    mr.totalAndAverage(total, average);
    cout << "\nTotal: " << total << ", Average: " << average;
    mr.write(total, average);

    return 0;
}
```

## MyReader.h

```
class myReader
{
private:
    int numArray[3];

public:
```

```
void read();  
void output();  
void doubleNums();  
void sort();  
void totalAndAverage(int &t, double &a);  
void write(int to, double av);  
};
```

#### MyReader.cpp

```
#include "MyReader.h"  
#include <iostream>  
#include <iomanip>  
#include <fstream>  
  
using namespace std;  
  
void myReader::read()  
{  
    ifstream myFile;  
    myFile.open("data.txt");  
    int tempNum;  
  
    for (int i = 0; i < 3; i++)  
    {  
        myFile >> tempNum;  
        numArray[i] = tempNum;  
    }  
  
    myFile.close();  
}
```

```

void myReader::output()
{
    for (int i = 0; i < 3; i++)
        cout << numArray[i] << ", ";
}

void myReader::doubleNums()
{
    for (int i = 0; i < 3; i++)
        numArray[i] *= 2;
}

void myReader::sort()
{
    int temp;
    for (int i = 0; i < 3; i++)
        for (int j = 0; j < 2 - i; j++)
            numArray[j] > numArray[j + 1]
                ? temp = numArray[j + 1],
                  numArray[j + 1] = numArray[j], numArray[j] =
temp : numArray[j + 1] = numArray[j + 1];
}

void myReader::totalAndAverage(int &total, double &average)
{
    total = 0;
    average = 0;
    int array[2];

```

```

    for (int i = 0; i < 3; i++)
    {
        total += numArray[i];
    }
    average = total / 3;
}

void myReader::write(int total, double average)
{
    ofstream outputFile("output.txt");

    for (int i = 0; i < 3; i++)
        outputFile << numArray[i] << " ";

    outputFile << "\n";
    outputFile << "The total of the numbers is: " << total <<
endl;
    outputFile << "The average of the numbers is: " << average <<
endl;
    outputFile.close();
}

```

Data.txt

```

Midterm > ≡ data.txt
1 5 8 2

```

Output.txt

```
Midterm > ≡ output.txt
1 4 10 16 |
2 The total of the numbers is: 30
3 The average of the numbers is: 10
4
```

Output

```
5, 8, 2,
Total: 30, Average: 10%
```