Assignment 7

Please make sure that proper internal documentation procedure is followed and ensure that your program is user friendly. For example, if the user enters a wrong number, they will be notified and be given another chance (which we will soon learn how to do).

Please create the following programs:

1. Create a program that reads the first 30 integers from a file (nums.txt). The program will read it and store it into an array. The program will have a menu and it will offer eight options:

    1. Show Number List from File (Unsorted)
    2. Show Sorted List
    3. Show Greatest number
    4. Show Smallest Number
    5. Average
    6. Median
    7. Save to a New File and get the name from the user
    8. Exit

2. You are going to manually create a data file (names.txt) that contains 30 male names and 30 female names. It will look like this:

```
Abe, M
Bill, M
…
```

Afterwards, by code you will create a randomly generated data file called: "studentdata.txt" which will contain (100 to 200 records).

Sample File Data:
```
1,Homer,M,98
2,Bart,M,77
3,Marge,F,63
4,Lisa,F,77
5,Smithers,M,91
…
```

Now, you are first going to create a program that first checks to see how many records are in a file. (Each record contains a student number, name, gender, and a grade. The three fields are delimited by a comma.)

Then it will read names from a file (no real limit) into three different arrays. The program will have a menu and it will offer the following eight options:

1. Show List from File (Unsorted)
2. Number of records
3. Sort List by Name
4. Sort List by Grade
5. Show Current List
6. Add Record
7. Delete specific Record
8. Averages by gender
9. Number of males and females
10. Save to a New File and get the file name from the user
11. Exit

Note: When saving to a New File, ask the user what the name of the file should be.

Submission:

TBA