CIS2500 Worksheet # 2 Due Friday 11:59pm of Week2

Submit a single file (either as txt, c file or pdf file) with all your answers in the dropbox for W2. Name the file as lastnameFirstnameW2.txt (or lastnameFirstnameW2.pdf or lastnameFirstnameW2.c).

Question 1: Given are 2 files, **worksheet2.h** that has the required definitions and prototypes and **w2Main.c that** has the main function**.** It also has the function definition of printGrad, that prints grad information.

```
#define MAX_LEN_NAME 20
#define MAX_GRAD_STUDENTS 3

#include <stdio.h>
#include <string.h>
#include <stdlib.h>

typedef struct justATag {

    char name [MAX_LEN_NAME];
    char  supervisor [MAX_LEN_NAME];
    int numCoursesDone;
    float currentPercentage;
} gradStudent;
```

a. Write a function definition for read1Grads, given the following prototype:

```
int read1Grads (FILE *file, gradStudent gsArray [MAX_GRAD_STUDENTS]);
```

This function will read grad information from a FILE pointer variable named file, line by line (one line for each member of a gradStudent), into gsArray array and return the number of gradStudents read. You may refer to file1.txt for this format. In normal operation, this function will read in exactly MAX_GRAD_STUDENTS lines.

For example, of file1.txt contains:

```
Harry Dang
Ria Jonas
3
87
Isabella Mensah
Ritu Chaturvedi
2
90
Larry Washington
Joe Zinga
3
78
```

Then gsArray [0] will contain the following members:

name: Harry Dang
supervisor: Ria Jonas
numCoursesDone: 3
currentPercentage: 87

And so on for other elements of gsArray.

b. Write a function definition for read2Grads, given the following prototype:

```
int read2Grads (FILE *file, gradStudent gsArray [MAX_GRAD_STUDENTS]);
```

This function will read grad information from a FILE pointer variable named file, line by line (one line for each gradStudent), into gsArray array and return the number of gradStudents read. You may refer to file2.txt for this format. For example, if file2.txt contains the following:

```
Harry Dang Ria Jonas 3 87
Isabella Mensah Ritu Chaturvedi 2 90
Larry Washington Joe Zinga 3 78
```

Then gsArray [0] will contain the following members:

name: Harry Dang
supervisor: Ria Jonas
numCoursesDone: 3
currentPercentage: 87

And so on for other elements of gsArray.

c. Write the definition for a function called oneMoreDone - this function adds 1 to the number of courses done by Harry Dang, prompts the user to enter marks of the new course completed (max out of 100), and updates the currentPercentage accordingly. Think carefully to decide the prototype.

2. Write a makefile that compiles 4 source files, one for each function named as read1Grads.c, read2Grads.c, oneMoreDone.c (if done) and a fourth source file for main that is given (called w2Main.c). Name the final target file as worksheetW2.

3. Submit the makefile and all source files to your gitlab repo called Worksheets.