CS 101
Fall 2020
Algorithm Due: **November 1st, 2020**
Program Due: **November 1st, 2020**
All work submitted must be your own.
Deliverables:

You must use functions to modularize your work in a logical way.
You should use exception handling where necessary as well.
All submitted work must be your own.
50 points off for programs that crash on expected input.

Grades

In this assignment, you must use error handling and file handling to display mid semester report for students with percentage of student work and their grade.
The 'Grades.csv' file contains students name, exam1 score, exam 2 score, assignment 1 and assignment 2 scores as well. All tasks are out of 100 each. The 'Grades' are .csv, you may find using the csv module easier to use. However, you can always read in a line and use. split.

Requirements

- Ask the user for the name of the file to open. It should continually ask until the user responds with a file that can be opened. The user may enter quit and the program will exit
- You will need to read each row in the following order (Name, Exam 1, Exam 2, Assignment 1, and Assignment 2).
- You will need to calculate student percentage in each section as follow:
    - Exam 1 worth 10% of total grade.
    - Exam 2 worth 10% of total grade.
    - Assignment 1 worth 5% of total grade.
    - Assignment 2 worth 5% of total grade.
    - Total percentage (out of 30%): Exam1%+Exam2%+Assignemt1%+Assignment2%
- You will need to calculate an estimate for student grade as follow
    - Student percent score (out of 100%) = (Total percentage/30)*100
- You will need also to display student grade depending on the following:
    - 'A' is 91% and above
    - 'B' is 81%- to 90%
    - 'B-' is 71%-80%
    - 'C' is 61%-70%
    - 'F' is <=60
- You will read data from Grades.csv and output all the above requirements to mid_report.csv (Name,Exam1 score, Exam2 score,Assignment1 score, Assignment2 Score, Exam1%,Exam2%,Assignment1%,Assignment2%,Total% out of 30%, Total% out of 100%, Grade).

Development notes.

- All import statements should be at the top of the program.
- Don't try to write it all at once, take your time and work on one skill at a time.

Example

```
Enter the name of the file (quit to exit) ==> students.csv
Could not open the file, please enter another.
Enter the name of the file (quit to exit) ==> grades.txt
Could not open the file, please enter another.
Enter the name of the file (quit to exit) ==> Grades.csv
Reading data and outputting to Students_grade...
Enter the name of the file (quit to exit) ==> q
Could not open the file, please enter another.
Enter the name of the file (quit to exit) ==> quit
>>>
```

Sample of mid_report.csv:

1	Homer Smith	89	97	99	100	8.9	9.7	4.95	5	28.55	95.16667	A
2	Jack Stanely	90	100	87	94	9	10	4.35	4.7	28.05	93.5	A
3	Daniel Hackson	80	85	75	89	8	8.5	3.75	4.45	24.7	82.33333	B
4	Sara Thomson	97	98	83	90	9.7	9.8	4.15	4.5	28.15	93.83333	A
5	Thomas Elu	100	97	94	97	10	9.7	4.7	4.85	29.25	97.5	A
6	Sam Carol	69	40	70	60	6.9	4	3.5	3	17.4	58	F
7	Tina Jefferson	79	90	80	95	7.9	9	4	4.75	25.65	85.5	B