

ICS 103: Programming in C, Term 171

Homework 2 for Sections 11 and 12 only

Write a program to process a collection of student grades. Your program should count the number of students who scored 90 to 100, the number of students who scored 80 to 89, the number of students who scored 70 to 79, the number of students who scored 60 to 69, and the number of student who scored less than 60. Each student grade must be an integer between 0 and 100. Reject any student grade greater than 100 or less than 0. Use the sentinel -1 to terminate input.

Your program should output the following:

1. Number of students who scored 90 to 100
2. Number of students who scored 80 to 89
3. Number of students who scored 70 to 79
4. Number of students who scored 60 to 69
5. Number of students who scored 0 to 59
6. Number of invalid grades in the input list (excluding the sentinel -1)
7. Maximum student grade
8. Minimum student grade
9. Average student grade

A sample run is shown below:

Grade Statistics Program written by *Your Name*

Enter a list of students grades (0 to 100) ended with -1:

89 73 62 95 49 -5 84 77 65 91 80 66 105 78 69 -1

```
Number of students who scored 90 to 100: 2
Number of students who scored 80 to 89: 3
Number of students who scored 70 to 79: 3
Number of students who scored 60 to 69: 4
Number of students who scored 0 to 59: 1
Number of invalid grades in the list: 2
Maximum student grade: 95
Minimum student grade: 49
Average student grade: 75.23
```

Submission Guidelines

Submit your source file on Blackboard. The name of the source file should be:

HW2_9digitID_Section.c

PLEASE DO NOT INCLUDE .EXE FILES IN YOUR SUBMISSION

Submission should be on Blackboard: ICS 103 section 11 and 12 course page, under the **HW2 Assignment** submission link.

Important Notes

- **EACH STUDENT IS REQUIRED TO DO THE HOMEWORK ALONE.** COPYING FROM ANY SOURCE IS REGARDED AS CHEATING.
- **Cheating is taken seriously.** Any cheating attempt will result in 0 in this homework and a warning is sent to the student. Repeated cheating cases will result in zeros in all homeworks.
- **Submissions via email is not accepted and will be simply ignored.**
- **You must use proper indentation, meaningful identifiers, and proper documentation (comments) in your program to get a full mark.**