

## CS 31 Worksheet 8

This worksheet is entirely **optional**, and meant for extra practice. Some problems will be more challenging than others and are designed to have you apply your knowledge beyond the examples presented in lecture, discussion or projects. All exams will be done on paper, so it is in your best interest to practice these problems by hand and not rely on a compiler.

Concepts: Structs

### 1. Class grading program

Write a grading program for a class (school class - not OOP class) based on the following SPECS. The grading program is for the entire class, not one student.

Grading Program SPECS:

```
// Assume a class size of 5
//
// Two quizzes, 10 points each
// midterm and final exam, 100 points each
// Of grade, final counts 50%, midterm 25%, quizzes25%
//
// Letter Grade is assigned:
// 90 or more A
// 80 or more B
// 70 or more C
// 60 or more D
// less than 60, F
//
// Read a student's scores,
// output record: scores + numeric average + assigned letter grade
//
// Use a struct to contain student record: StudentRecord
// You should have three methods associated with the struct StudentRecord:

// void input(StudentRecord& student);
//prompts for input for one student, sets the structure variable members.

// void computeGrade(StudentRecord& student);
//calculates the numeric average and letter grade.

// void output(const StudentRecord student);
//outputs the student record.
```

Data for the test run:

```
1 7 10 90 95
2 9 8 90 80
3 7 8 70 80
4 5 8 50 70
5 4 0 40 35
```