

Main.cpp

```
/* Nicholas Chan & Kenry Yu
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 / CECS 282 Sec 06
 / Week 3 Lab 2
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 */

#include "Student.h"
#include <iostream>
using namespace std;

int main() {
    Student studentList[5] = {Student("Tom", 85), Student("Alice", 71),
                               Student("Jack", 93), Student("Mary", 65),
                               Student("Sue", 54)};

    for (int i = 0; i < (sizeof(studentList) / sizeof(studentList[0])); i++)
        studentList[i].print();

    return 0;
}
```

Student.h

```
#ifndef STUDENT_H
#define STUDENT_H
#include <iostream>
#include <string>
using namespace std;

class Student {
    // Private members
private:
    string name;
    int score;
    char grade;

    //Public members
public:
    Student();
    Student(string name, int score);
    ~Student();
    void print();
};

#endif
```

Student.cpp

```
#include "Student.h"
#include <iomanip>
#include <iostream>
#include <string>
using namespace std;

// Default constructor this initializes the name, score, and grade
Student::Student() {
    this->name = "None";
    this->score = 0;
    this->grade = 'F';
}

// Overloaded constructor that set specific name and score of the student
Student::Student(string name, int score) {
    this->name = name;
    this->score = score;
    // studentGrade = [Grade/10]
    char letterGrade[] = {'F', 'D', 'C', 'B', 'A'};
    if (score >= 90) {
        this->grade = letterGrade[4];
    } else if (score >= 80) {
        this->grade = letterGrade[3];
    } else if (score >= 70) {
        this->grade = letterGrade[2];
    } else if (score >= 60) {
        this->grade = letterGrade[1];
    } else {
        this->grade = letterGrade[0];
    }
}

// Destructor that deletes the object
Student::~Student() {}

// Print function that prints out the student's name, score, and letter grade
void Student::print() {
    cout << left << setw(10) << name << right << setw(5) << score << setw(5)
        << grade << endl;
}
```

Output

```
> ./main
Tom      85    B
Alice    71    C
Jack     93    A
Mary     65    D
Sue      54    F
> 
```