

## **Designs 5 (Arrays 1)**

### **Graded course work**

---

## **Important Notes:**

- **Write all the programs, from the designs in this handout**
- **Use the same program names, and variable names that I have specified**
- **Compile, run, and test your programs**
- **Submit a copy of these programs to me for grading**
- **If you don't know how to do any particular part, ask me -- I will show you how**

**Program (student5.c)**

Complete the program `student5.c` in the lecture handout.

---

---

**Program (temps2.c)**

Based on program `temps1.c`, `highest2.c`, and `lowest2.c`, write a program that will print out the highest-high, and lowest-high temperatures for a week.

**Program Output:**

```
This weeks high temperatures, ranged from: 64 to: 75
Press any key to continue_
```

---

---

**Program (gold2.c)**

Based on program, `gold1.c`, write a program that will only print out the non-zero gold prices.

**Program Output:**

```
Closing Gold for March 1, was: $288.34
Closing Gold for March 2, was: $289.40
Closing Gold for March 3, was: $292.90
Closing Gold for March 4, was: $289.90
Closing Gold for March 5, was: $288.50

Closing Gold for March 8, was: $288.80
Closing Gold for March 9, was: $289.70
Closing Gold for March 10, was: $291.20
Closing Gold for March 11, was: $291.20
Closing Gold for March 12, was: $290.50

Closing Gold for March 15, was: $290.25
Closing Gold for March 16, was: $290.65
Closing Gold for March 17, was: $288.75
Closing Gold for March 18, was: $289.15
Closing Gold for March 19, was: $288.50

Press any key to continue_
```

## Program (grades1.c)

Write a program, based on `numbers2.c`, and `menu2.c` that asks for a student's score. It will keep asking for a score until a negative number is entered. The program will record the numbers of each letter grade.

In this program:

- An "A" grade is a score of 91 - 100
- A "B" grade is a score of 81 - 90
- A "C" grade is a score of 71 - 80
- A "D" grade is 70 or lower

Use a `do - while()` loop, and `if()` statements.

### Program Output:

```
Please enter the student's grade (0 - 100): 98
Please enter the student's grade (0 - 100): 97
Please enter the student's grade (0 - 100): 87
Please enter the student's grade (0 - 100): 85
Please enter the student's grade (0 - 100): 77
Please enter the student's grade (0 - 100): 79
Please enter the student's grade (0 - 100): 66
Please enter the student's grade (0 - 100): 68
Please enter the student's grade (0 - 100): 75
Please enter the student's grade (0 - 100): 84
Please enter the student's grade (0 - 100): 55
Please enter the student's grade (0 - 100): 43
Please enter the student's grade (0 - 100): 32
Please enter the student's grade (0 - 100): -1

The number of "A" grades, is: 2
The number of "B" grades, is: 3
The number of "C" grades, is: 3
The number of "D" grades, is: 5
Press any key to continue_
```

My version uses these variables:

```
int the_grade = 0,
    a_grades = 0,
    b_grades = 0,
    c_grades = 0,
    d_grades = 0;
```