CMSC 106 Quiz 5 Worksheet

The fifth quiz for the course will be on Wed, Dec 4. The following list provides more information about the quiz:

- The quiz will be a written quiz (no computer).
- Closed book, closed notes quiz.
- Answers must be neat and legible.
- Quiz instructions can be found at http://www.cs.umd.edu/~nelson/classes/utilities/examRules.html

The following exercises cover the material to be included in this quiz. Solutions to these exercises will not be provided, but you are welcome to discuss your solutions with the TA or instructor during office hours. If is recommended that you try these exercises on paper first (without using the computer).

Exercises

1. Define a structure (using typedef) called Name that has the following fields:
   - first_name – maximum length 80
   - last_name – maximum length 80

2. Define a compare_name function that takes two Name structures and returns -1 if first parameter precedes the second, 0 if they are equal and 1 otherwise. The function should compare last_name first.

3. Define a structure (using typedef) called Customer that has the following fields:
   - full_name – of type Name (defined above)
   - age → integer
   - phone → string (maximum size 12)

4. Define a function init_customer that initializes and returns a Customer structure. The parameters to the function will be full_name, age and phone.

5. Define a function called print_customer that prints the contents of a Customer structure.

6. Define a function called equals that compares two Customer structures. Two customers are considered equal if they have the same name. The function takes two Customer pointers as parameters and returns 1 if the customers are equal and 0 otherwise.

7. Define a function called find_customer that takes an array of Customer structures as parameter. The function will return 1 if a customer with a particular name is found in the array and 0 otherwise.