

CMSC 106 Quiz 5 Worksheet

The fifth quiz for the course will be on Wed, Nov 28. 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 size 80
last_name – maximum size 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.