



CS1004 - Object Oriented Programming Quiz 2



Question 1:

- Write a structure specification that includes three variables—all of type `int`—called `hrs`, `mins`, and `secs`. Call this structure `timeType`.
- Write a statement that sets the `hrs` member of the `time2` structure variable equal to 11.
- If you have three variables defined to be of type `struct timeType`, and this structure contains three `int` members, how many bytes of memory do the variables use together?
- Write a definition that initializes the members of `time1`—which is a variable of type `struct timeType` to `hrs = 11`, `mins = 10`, `secs = 59`.
- Define a function that returns a structure variable of type `timeType` which is the sum of the two `timeType` variables passed to the function. Make sure that the returned `timeType` variable contains valid values for `hrs`, `mins` and `secs`.

Question 2:

A phone number, such as (212) 767-8900, can be thought of as having three parts: the area code (212), the exchange (767), and the number (8900).

Write a program that uses a structure to store these three parts of a phone number separately. Call the structure `phoneType`. Create two structure variables of type `phoneType`. Initialize one, and have the user input a number for the other one. Then display both numbers.

The interchange might look like this:

Enter your area code, exchange, and number: 415 555 1212

My number is (212) 767-8900

Your number is (415) 555-1212

Question 3:

What are the disadvantages of passing a structure variable by reference and how can you avoid them?

