

C++ Crash Course: Practical 3

1. Write a C++ program using two namespaces 'nsa' and 'cia', each declaring two int variables 'first' and 'second' and a function called secret_number, which takes any two ints as the argument. The nsa version of secret_number adds the two numbers together, while the cia version calculates the difference. Using namespace scoping, initialise the variables in the two namespaces. Calculate the secret numbers for the cia and nsa versions of the secret number function using the both the nsa and cia numbers first and second (4 numbers in total).
2. Modify your program and functions to use a struct within the namespace to store first and second.
3. Now make an array of 10 structs. Initialise the first and second numbers to the loop variable in the initialisation statement to the array index and 3*array index respectively. Loop over the array, calculating the nsa secret_number for each pair, and then output all three numbers to a text file.
4. Read in the values from the file into two arrays (one of structs and one of type int for the secret numbers). Now output these arrays in binary format to a second output file.