Goal:	A stronger understanding of binary addition.

PART I: Background

You are to complete the implementation of the function:

void AddBinary(int a[8], int b[8], int c[8]) ;   // c = a + b

This function perform binary addition using 8-bit operands stored as arrays of ints. Parameters "a" and "b" hold the inputs and parameter "c" holds the output.

The least significant bit is stored in the first array element. You may NOT modify the number or type of parameters, or the return type of the functions.

PART II: Preparation

1. Download the ZIP file called "Lab Assignments.zip" from the course website on Camino.

2. Unzip the file to your desktop. This should create a folder called "Lab Assignments". Open the folder.

3. Find and double click on the file called "COEN20.eworkspace". This will open the EmBitz Integrated Development Environment (IDE) and display the projects for all the lab assignments.

4. If step 3 did not open EmBitz, find the program on the Start Menu and open it. Once EmBitz is open, click on "File > Open" in the upper left-hand corner. In the dialog window that opens, find the pull-down menu in the bottom right and select "EmBitz workspace files". Then in the middle of the dialog window, navigate to your "Lab Assignments" folder, select the file "COEN20.eworkspace", and click on "Open".

PART III: Creating Your Solution

1. Find the project (lab assignment) name in the "Management" panel on the left side of the screen. Make sure that the name is in **boldface**, which indicates that the project is _Active_. If not, right-click on it and select "Activate project".

2. Expand the project by clicking on the "+" sign immediately to the left of its name. Do the same for any subgroups found within it.

3. Double-click on "Binary_Addition.c" to open the file. Complete the implementation of the source code.

4. To compile the program, right-click on the project name and select "Build". If there are any error or warning messages displayed, correct the source code of the function and recompile.

   Hint: Function key F7 is a short-cut for "Build" for the Active project.

5. Connect the STM32F4 Discovery board to a USB port on your computer. This provides both power and a download connection to the device. To download the program to the board, click on "Debug" → "Start/stop Debug Session".

   Hint: Function key F8 is a short-cut for "Debug" → Start/stop Debug Session".

6. To run the program, click on "Debug" → "Run". When the program begins to run it will display the first test case and pause. Press the left button to sequence through all the test cases. Verify that your program behaves as expected.

7. To end the debug session, click on "Debug" → Start/stop Debug Session" again.

8. Demonstrate your working program to the Teaching Assistant.

9. Upload your final version of file Binary_Addition.c to Camino.