

Spring 2021

CSCI 2450: HW4 (Programming Assignment) (10 points)

Problem 1 (10 points): Boolean Calculator

Create a program that functions as a simple Boolean calculator for 32-bit integers. It should display a menu that asks the user to select from the following list:

1. x AND y
2. x OR y
3. NOT x
4. x XOR y
5. Exit program

When the user makes a choice, call a procedure that displays the name of the operation about to be performed and further calls an appropriate procedure for the operation. Implement the following procedures:

- AND_op: Prompt the user for two hexadecimal integers. AND them together and display the result in hexadecimal.
- OR_op: Prompt the user for two hexadecimal integers. OR them together and display the result in hexadecimal.
- NOT_op: Prompt the user for a hexadecimal integer. NOT the integer and display the result in hexadecimal.
- XOR_op: Prompt the user for two hexadecimal integers. Exclusive-OR them together and display the result in hexadecimal.

(The Irvine32 library is required for this solution program.)

Submission & Marking Guideline

- Apply good programming practices with ample comments/documentation in your source code.
- This is an individual assignment. Do not share your work with others.
University Honors Code will be strictly enforced for potential copying and academic dishonesty.
- **Deadline**

April 22, 2021 Thursday 11:59pm

- **Submission**
- Your solution must be an assembly language file (.asm). Follow this naming convention:

Firstname_Lastname_HW4_Prob1.asm

- If you have multiple files: Create a zip archive/file with your files
- Upload your submission on Moodle through the submission link. The name of your final zipped file/folder must be: **Firstname_Lastname_HW4**

You may email me your work only if Moodle is not working.

ASSISTANCE AVAILABLE: All office hours and tutoring sessions are currently being held virtually through Zoom. You may ask clarifications on this assignment by (virtually) attending a tutoring session with **the helpdesk**. Or, ask me during my office hours.

DO NOT PROCRASTINATE. START EARLY. Good Luck!