

COSC 1420.S01
PROGRAM TWELVE

ASSIGNMENT:

Create a program which will implement the following macros implemented with #define statements:

- a) A macro named IsOn with two parameters. The first is a value where the bit represent the current status of a set of devices. The bits will be numbered from right to left from 0 to 31. The second parameter is the bit number to check. If it is on, the macro will give a 1, if not it will give a 0.
- b) A macro named TurnOn with two parameters as described above. The designated bit in the first parameter will be set to 1.
- c) A macro named TurnOff with two parameters as described above. The designated bit in the first parameter will be set to 0.
- d) A macro named Toggle with two parameters as described above. If the designated bit in the first parameter is 1, set it to 0. If it is a 0, set it to 1.

Your program will ask the user to enter whole number values written in hexadecimal up to eight digits in length (the size of a long) so that your program can demonstrate the correct functioning of the macros.

DUE: 17 Apr 2019

- 1) An electronic copy of the .c and .h files in the project folder as created by Visual Studio. This will be emailed to the instructor with the subject line "COSC 1420.S01 – Lab 12".
- 2) If you wish any feedback on your work, turn in a printed listing of the .c and .h files that you created.