

Lab #2 activity – 411G

Extend your computer program by adding the following features:

- Add "Laboratory #2" menu option
- Add a submenu
- Add to the submenu the first option and implement its functionality
 - Create an array of **structures**, with a size greater than 1, on the stack. The structure should have at least two members. Initialize its elements.
 - Output the contents of the array using pointer arithmetic.
- Add the second option to the submenu
 - Create an array of **doubles** with a size greater than 1 in the heap. Initialize its elements.
 - Output the contents of the array using pointer arithmetic.
- Add the third option to the submenu
 - Create a global array of **ints** y with a size greater than 1. Initialize its elements.
 - Output the contents of the array.
- Add 4th option to the submenu(**optional, recommended**)
 - On a 32-bit unsigned variable initialized with 0x00000000 perform the following operations:
 - Set bits #0, #1, #16, #17 and #21.
 - Clear bit #16
 - Flip (toggle) bit #31
 - Perform a left shift with 5.
 - Perform a right shift with 16.
 - Print all 32 bits.
 - Print the value of the variable in hexadecimal.

Note: For each lab activity you have to create a separated source file and its corresponding header file. At the end of the semester you should have a source tree similar to the following:

| | |
|--------|--------|
| menu.h | lab1.c |
| menu.c | ... |
| main.c | lab7.h |
| lab1.h | lab7.c |