CS 314 F22 Week 2 Lab - 10 points - Due Wednesday, 10/5, 11:59pm.

Swapping bytes

Suppose we number the bytes in a 32-bit word from 0 (least significant) to 3 (most significant). Write code for the following C function that will return an unsigned int such that the two bytes ‘a’ and ‘b’ are swapped.

unsigned int swap(unsigned int x, int a, int b);

Here are some test runs:

```
swap(0xABCDEF12, 3, 0): 0x12CDEFAB.
swap(0xABCDEF12, 3, 1): 0xEFCDAB12.
swap(0xABCDEF12, 3, 2): 0xCDABEF12.
```

Use only bitwise operators; no if statements, loops, or arithmetic operators (+, -, *, /, %).

See the lab 2 assignment page for a .c file to get you started.
You should only need to implement the “getByte()” function.

Submit a .zip or .gz file containing:

1. a .c file file containing your work titled <yourDuckID>-lab2.c
2. A screenshot of your linux terminal showing **both** the successful compilation and execution of your program.