Due Date: Thursday, February 8, 2018

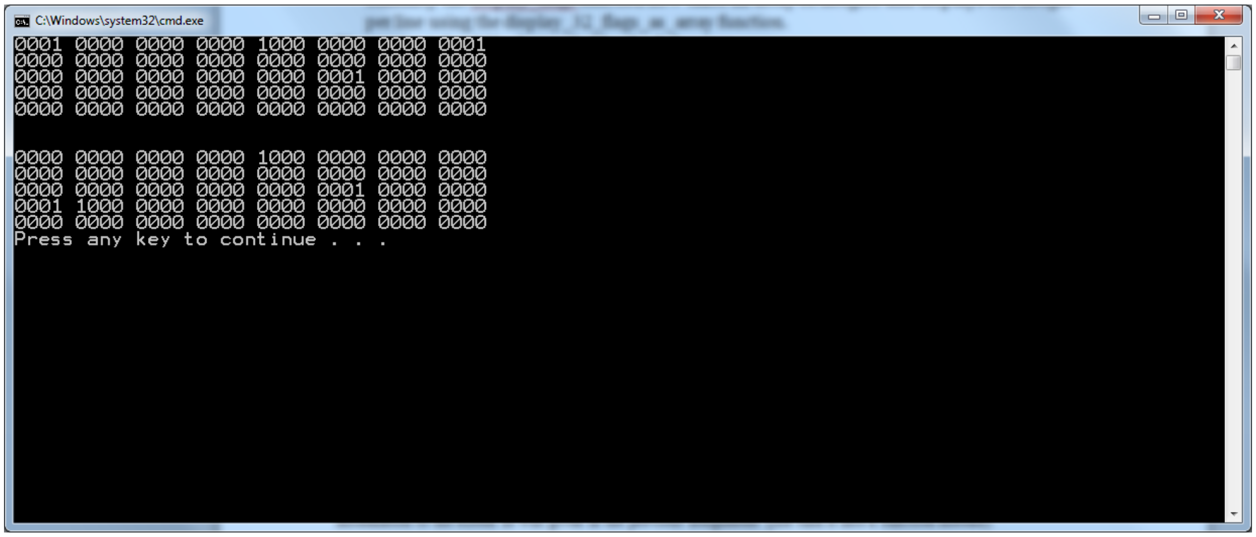
This daily will allow you to practice more with the bit wise operators and shifts. Consider the following modification of the main program from daily 4:

```
void set_flag(unsigned int flag_holder[], int flag_position);
void unset_flag(unsigned int flag_holder[], int flag_position);
int check_flag(unsigned int  flag_holder[], int flag_position);
void display_32_flags_as_array(unsigned int flag_holder);
void display_flags(unsigned int flag_holder[], int size);

int main(int argc, char* argv[])
{
       unsigned int flag_holder[5] = { 0 };//Set the first integer to zero and all others
to zero by default.

       set_flag(flag_holder, 3);
       set_flag(flag_holder, 16);
       set_flag(flag_holder, 31);
       set_flag(flag_holder, 87);

       display_flags(flag_holder, 5);
       printf("\n\n");

       unset_flag(flag_holder, 31);
       unset_flag(flag_holder, 3);
       set_flag(flag_holder, 99);
       set_flag(flag_holder, 100);

       display_flags(flag_holder, 5);
       return 0;
}
```

Here I have changed the functions so that they take an array of integers instead of just one integer. This allows me to imagine that I have a long array of bits instead of an array of integers. The functions can now set, unset, check and display flags for any bit in the array of 5 integers that I have made (and should work for any size array as long as your bit index is in bounds of your array).

I also changed the display behavior. Daily 4 displayed the flags as you would see them in a binary number but since this program is moving away from the idea of a binary number to store bits and moving toward the idea of having an array of bits the display_32_flags_as_array function will display the [0] bit first then [1] and so on up to 31 whereas the display_32_flags function in daily 4 displays the [31] bit first and down to [0]. Similarly the display_flags function now takes an array of integers and displays one integer per line using the display_32_flags_as_array function.

Your output should look exactly like the following:



```
0001 0000 0000 0000 1000 0000 0000 0001
0000 0000 0000 0000 0000 0000 0000 0000
0000 0000 0000 0000 0000 0001 0000 0000
0000 0000 0000 0000 0000 0000 0000 0000
0000 0000 0000 0000 0000 0000 0000 0000


0000 0000 0000 0000 1000 0000 0000 0000
0000 0000 0000 0000 0000 0000 0000 0000
0000 0000 0000 0000 0000 0001 0000 0000
0001 1000 0000 0000 0000 0000 0000 0000
0000 0000 0000 0000 0000 0000 0000 0000
Press any key to continue . . .
```

You may want to be careful about how you call your check_flag function from inside the display_32_flags_as_array function since that function receives an integer and check_flag is expecting an array. How can you overcome this obstacle?

At the top of your code you should have a comment section that has the following format:

```
/*************************************************************
       Author: <your name>
       Date: <Today's date>
       Effort: <Time you spent on this project>
       Purpose: <Purpose of this assignment in your own words>
*************************************************************/
```