Lab 15

Description:

You are tasked with controlling two banks of four drop targets in a pinball machine. A drop target is a target in a pinball machine that drops when hit, and is not capable of being hit again until the machine resets it. Each of these banks of targets lies on opposite sides of the pinball machine. The machine awards 500 points for every target hit, but you can only read the state of all eight targets at once. This state is read as a two-digit hexadecimal number. At the beginning of each ball, all targets are set to be up. If the machine detects that all of one bank of targets are down it automatically resets that bank after sending the state to be scored. When a target is hit, it is latched down until the machine determines that the bank of targets it is in needs to be reset, or until the ball is out of play. Targets reset for each ball and when are have been placed down.

Input:

The input will be read from a file, filename user specified. On each line will be either a two digit hexadecimal number or the '#' symbol. The least significant number represents the right bank of targets; the most significant number represents the left bank of targets. Every bit in the state represents a downed target (1 for down, 0 for up). A '#' symbol will signify the end of one ball, two '#' symbols will signify the end of all input. All '#' appear on their own line of input.

Output:

The output will be R and the value for the right bank L the value for the left bank Total and the value for the total scored of the drop targets for each ball played.

Sample Input:

```
0x02
0x06
0x86
#
0x01
0x81
0x87
#
0x0A
0xFA
#
0xFA
0X8A
#
##
```

Sample Output:

R 1000 L 500 Total 1500
R 1500 L 500 Total 2000
R 1000 L 2000 Total 3000
R 1000 L 2500 Total 3500

Specifics

- You will have a single file named cscd240_s13_lab15Tester.c. All your code will go within main, or in functions that will reside in this C file
- You must you bitwise operations for this lab.
- You will read into an int, there will be no character arrays, or arrays of any type
- You will not use malloc/calloc or any dynamic allocation
- You will use fopen to open the input file which will be hardcoded as lab15.txt
- Output will be to the screen
- You output will match the Sample Output for the Sample Input file, spacing included

Turn In

A single zip file containing:

- cscd240_s13_lab15Tester.c
- lab15.txt
- An output run named cscd240_lab15out.txt

I hope you know the naming scheme by now.