Assignment 8

Reading and Exercises

Read Lesson 8 (Blackboard) and pages 297-303, 309-319 (do-while loop, break and continue), Programming with Words

1. Write an infinite loop using a for loop.
2. Write a for loop that counts only the odd numbers out of the first five numbers entered from the keyboard but does not count (skips) the number 7. Use the keyword continue to skip 7 inside the loop
3. Write the same program above but exit the for loop using break if the number 7 is entered.

C++ Program

Write a program that prints all integers between any two integers. There should be a function called *print_numbers* that takes the initial and ending integer as parameters and prints all the intervening integers.
The integers will be displayed in two columns, under the headings **Even** and **Odd**.
Use a for loop to implement this.

Hint: The for loop should print one line at a time, each line with a pair even-odd. Of course, if the lower boundary (i.e. the lowest number in the interval) is even, the first number to print will be an odd, and the first line will contain only that number under the Odd column (see the last example). On the other hand, if the last number in the interval is odd, then the last value to be printed will be even (because we only display the values BETWEEN the parameters). In this case, the last line to be displayed will only have an even number (see the first example). Therefore I recommend that if the lower limit is even, since the first line will only show an odd number, display that line before you set up the loop to display the pairs.
Similarly, if the upper limit happens to be odd, that means the last line will contain only an even number. You should print that line AFTER the loop, but only if the upper limit is odd.

For example, the call *print_numbers(3,11)* should produce the output

```
 Even      Odd
4             5
6             7
8             9
10
```

While the call print_numbers(3,14) should produce the output

Even	Odd
4	5
6	7
8	9
10	11
12	13

And *print_numbers(2, 14)*

Even	Odd
	3
4	5
6	7
8	9
10	11
12	13