ESC101 : Fundamental of Computing

Lab 2 for 7th August 2008

1. **Printing truth tables :**
   A truth table shows how a logic circuit's output responds to various combinations of the inputs. All permutations of the inputs are listed on the left, and the output of the circuit is listed on the right.

   (For more about truth tables, visit `http://en.wikipedia.org/wiki/Truth_table`)

   In this assignment, you are required to print the truth tables for the logical `AND` and `OR` gates.

   Print the table in the following format:

A	B	A AND B	A OR B
true	true	—-	—-
true	false	—-	—-
false	true	—-	—-
false	false	—-	—-

2. **Summation of all the integers between two given integers :**
   Declare two integer variables `i` and `j`. Assign some non-negative value to `i` ($i \geq 0$) and some value to `j` such that $j \geq i$. Write a Java program to find the sum of all integer numbers between `i` and `j`.

   e.g. If $i = 10$ and $j = 100$, then the output should be $10 + 11 + \cdots + 100$.

   Hint: You can find the value of the result using a single statement.

3. **Reversing a six-digit integer :**
   Declare an integer variable `num`. Assign a six-digit positive value to `num`. The digit in Lakh's place of *num* cannot be zero. Now write a code to obtain another integer which has the digits of `num` in reverse.

   In other words, let $num = \alpha\beta\gamma\delta\theta\tau$, ($\alpha \neq 0$). Then, obtain the other integer as $\tau\theta\delta\gamma\beta\alpha$.