

# **Lab**

## **CPE100 Computer Programming for Engineers**

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## LAB 01:- LOGIC TABLE

Write a C program to create a logic table for these operators: AND, OR, XOR, IF, and IF and only if, where 0 means False and 1 means True. The examples of the result is shown as follows.

A	B	A AND B	A OR B	A XOR B	IF A THEN B	A IFF B
0	0	0	0	0	1	1
0	1	0	1	1	1	0
1	0	0	1	1	0	0
1	1	1	1	0	1	1

```

/*****
PROGRAM : labweek3.c
PURPOSE : For showing logic table with AND, OR, XOR, IF THEN, and IFF
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*****/

#include<stdio.h>
#include<conio.h>
void main()
{
    int a,b,temp,i;

    printf("\t+---+---+-----+-----+-----+-----+-----+\n");
    printf("\t| A | B |A and B|A  or B|A XOR B|IF A THEN B|A IFF B|\n");
    printf("\t+---+---+-----+-----+-----+-----+-----+\n");
    for(i=0;i<4;i++)
    {
        temp=i;
        a=i%2;
        temp/=2;
        b=temp%2;
        printf("\t| %d | %d |  %d  |  %d  |  %d  |      %d      |  %d  |
\n",b,a,a&&b,a||b,a^b,a||!b,a && b || !a && !b);
    }
    printf("\t+---+---+-----+-----+-----+-----+-----+\n");
}

```