8051 Logical and Bit-wise operators

In C program, there are two operators:

- Logic Operators.
- Bit-wise Operators.

Logical operators :

- AND (&&)
- OR (||)
- NOT (!)

Bit-wise operators :

- AND (&)
- OR (|)
- EX-OR (^)
- Inverter (~)
- Shift Right (>>)
- Shift Left (<<)

Bitwise Logic Operator

		AND	OR	EX-OR	INVERTER
A	B	A&B	A|B	A^B	~B
0	0	0	0	0	1
0	1	0	1	1	0
1	0	0	1	1	
1	1	1	1	0	

Example :

include <reg51.h>

void main(void)

```
{
        P0=0x35 & 0x0F; //ANDing

        P1=0x04 | 0x68; //ORing

        P2=0x54 ^ 0x78; //XORing

        P0=~0x55; //inversing

        P1=0x9A >> 3; //shifting right 3

        P2=0x77 >> 4; //shifting right 4

        P0=0x6 << 4; //shifting left 4
}
```