

Lecture - 3

Operators:

1. Binary operator: + , - , / , * , %

Example:

```
void main(void)
{
    int a = 5, b = 3;
    printf("%d\t%d", a+b, a-b);
}
```

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2. Unary operator: + , -

Example:

```
void main(void)
{
    int a = 5, b = 3;
    printf("%d", -a+b);
}
```

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3. Relational operator: > , >= , < , <= , == , !=
true will return 1 and false will return 0.

Example:

```
void main(void)
{
    int a = 5, b = 3;
    printf("%d%d", a>b, a==b);
}
```

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4. Logical operator: && (AND) , || (OR) , ! (NOT)
true will return a nonzero value and false will return 0.

Example:

```
void main(void)
{
    int a = 5, b = 3;
    printf("%d%d", (a>b)&&(a!=b), !(b>a) || (b==a));
}
```

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5. Bitwise operator: & (AND), | (OR), ^ (XOR), <<, >>, ~

A	b	A AND b
0	0	0
0	1	0
1	0	0
1	1	1

a	b	a OR b
0	0	0
0	1	1
1	0	1
1	1	1

a	b	a XOR b
0	0	0
0	1	1
1	0	1
1	1	0

a	NOT a
0	1
1	0

Example:

```
void main(void)
{
    int a = 5, b = 6;
    printf("%d%d", (a<<2), (a|b) );
}
```

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6. Increment and decrement operator: ++, --

Example:

```
void main(void)
{
    int i = 5;
    printf("%d%d", i++, i--);
    printf("%d", i);
}
```

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7. Assignment operator: =, +=, *=, -=, /=, %=, &=, |=, ^=, <<=, >>=

Example:

```
void main(void)
{
    int a=5, b=3;
    a+=b; b*=a;
    printf("%d%d", a, b);
}
```

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Punctuators: ` @ # \$ () { } [] ; : " ' , . ?