## <u>Lecture - 3</u>

## Operators:

```
1. Binary operator: +, -, /, *, %
Example:
       int main()
                                                                    2
       int a = 5, b = 3;
       printf("%d\t%d",a+b,a-b);
       return 0;
       }
   2. Unary operator: +,-
Example:
       int main() {
       int a = 5, b = 3;
       printf("%d",-a+b);
       return 0;
   3. Relational operator: >, > = , <, < = , = = , ! =
       true will return 1 and false will return 0.
Example:
       int main()
                                                               10
       int a = 5, b = 3;
       printf("%d%d",a>b,a==b);
       return 0;
   4. Logical operator: && (AND), || (OR), ! (NOT)
       true will return a nonzero value and false will return 0.
Example:
       void main()
                                                               11
       int a = 5, b = 3;
       printf("d%d",(a>b)&&(a!=b),!(b>a)| |(b==a));
```

5. Bitwise operator: & (AND), | (OR), | (XOR), | (| (XOR), | (| (| (| )), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ), | (| ),

Α	b	A AND b
0	0	0
0	1	0
1	0	0
1	1	1

X

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

same hoile 0

a	NOT a
0	1
1	0

Example:

```
void main()
{
int a = 40, b= 15;
printf("%d", ~(((a>>2) & (b<<3)) ^ (a | b)));
}
```

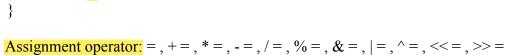
-40

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

Example:

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

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Example:

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

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