

# Workshop on

## C# Programming: Learn to Build

Date :

Day 1 - 26, October 2018

Day 2 - 2, November 2018

Day 3 - 9, November 2018



Sponsored by:



Young Engineers Society

Organized by :

East West University  
Computer Programming Club

**C#**

Day 1

Lecture3: Operator

# Arithmetic Operator

- +
- -
- \*
- /
- %
- ++
- --

# Arithmetic Operator

```
int a = 1, b = 2, c = 3;
```

```
int d = a + b * c;
```

```
int e = d / c;
```

```
int f = d % b;
```

```
Console.WriteLine(d);
```

```
Console.WriteLine(e);
```

```
Console.WriteLine(f);
```

```
Console.ReadKey();
```

# Arithmetic Operator

```
int a =5;
```

```
a = a+ 5;
```

```
Console.WriteLine(a);
```

# Arithmetic Operator

```
int a =5;
```

```
a += 5;
```

```
Console.WriteLine(a);
```

# Arithmetic Operator

```
int a =5;  
a = a- 5;  
Console.WriteLine(a);
```

Or,

```
int a =5;  
a -= 5;  
Console.WriteLine(a);
```

# Arithmetic Operator

```
int a =5;  
a = a * 5;  
Console.WriteLine(a);
```

Or,

```
int a =5;  
a *= 5;  
Console.WriteLine(a);
```



# Arithmetic Operator

```
int a =5;  
a = a/ 5;  
Console.WriteLine(a);
```

Or,

```
int a =5;  
a /= 5;  
Console.WriteLine(a);
```

# Arithmetic Operator

- Pre-increment

```
int a =5;
```

```
++a;
```

```
Console.WriteLine(a);
```

# Arithmetic Operator

- Pre-increment

```
int a = 5, int b;
```

```
b = ++a;
```

```
Console.WriteLine(a);
```

```
Console.WriteLine(b);
```

# Arithmetic Operator

- Post-increment

```
int a =5;
```

```
a++;
```

```
Console.WriteLine(a);
```

# Arithmetic Operator

- Post-increment

```
int a = 5, int b;
```

```
b = a++;
```

```
Console.WriteLine(a);
```

```
Console.WriteLine(b);
```

# Arithmetic Operator

```
int u = 5; int v = 3;  
int x = u++ + ++v + ++u;  
Console.WriteLine(x);
```

# Logical Operator

- &&
- ||
- !

# Logical Operator

- Logical AND (&&)

```
bool res;
```

```
int num = 10, num1 = 20;
```

```
res = (num == num1) && (num>5);
```

```
Console.WriteLine(res);
```



# Logical Operator

- Logical OR (||)

```
bool res;
```

```
int num = 10, num1 = 20;
```

```
res = (num == num1) || (num > 5);
```

```
Console.WriteLine(res);
```

# Relational Operator

- ==
- !=
- >
- <
- >=
- <=

# Relational Operator

- Equal to (==)

```
bool res;
```

```
int num = 10, num1 = 20;
```

```
res = (num == num1) ;
```

```
Console.WriteLine("{0} == {1} returns {2}", num, num1, res);
```

# Relational Operator

- Not Equal to (!=)

```
bool res;
```

```
int num = 10, num1 = 20;
```

```
res = (num != num1) ;
```

```
Console.WriteLine("{0} != {1} returns {2}", num, num1, res);
```

# Relational Operator

- Greater than (>)

```
bool res;
```

```
int num = 10, num1 = 20;
```

```
res = (num > num1) ;
```

```
Console.WriteLine("{0} > {1} returns {2}", num, num1, res);
```

# Relational Operator

- Less than (<)

```
bool res;
```

```
int num = 10, num1 = 20;
```

```
res = (num < num1) ;
```

```
Console.WriteLine("{0} < {1} returns {2}", num, num1, res);
```

# Relational Operator

- Greater than or Equal to ( $\geq$ )

```
bool res;
```

```
int num = 10, num1 = 20;
```

```
res = (num  $\geq$  num1) ;
```

```
Console.WriteLine("{0}  $\geq$  {1} returns {2}", num, num1, res);
```

# Relational Operator

- Less than or Equal to (<=)

```
bool res;
```

```
int num = 10, num1 = 20;
```

```
res = (num <= num1) ;
```

```
Console.WriteLine("{0} <= {1} returns {2}", num, num1, res);
```



# Assignment Operator

- =
- +=
- -=
- \*=
- /=
- %=
- >>=
- <<=
- &=
- ^=
- |=

# Assignment Operator

- Add AND Assignment Operator (+=)

```
int res;
```

```
int num = 10;
```

```
res += num;
```

```
Console.WriteLine("Result of res = {0}", res);
```

# Assignment Operator

- Left Shift AND Assignment Operator (<<=)

```
int res;
```

```
int num = 10;
```

```
res <<= num;
```

```
Console.WriteLine("Result of res = {0}", res);
```

This slide is provided as a course material in the workshop named  
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Organized by-  
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