

OPERATÖRLER

Hazırlayan : Muhammed Esad Goncaloğlu

OPERATÖRLER NEDİR?

- C operatörleri, matematiksel, ilişkisel, bit düzeyinde, koşullu veya mantıksal manipölasyonları gerçekleştirmek için kullanılabilen sembollerdir.
- Operatörün derleyiciye belirli matematiksel, koşullu veya mantıksal işlevleri gerçekleştirmesini söyleyen bir sembol olduğunu da söyleyebiliriz.
- C programlama dili, programın ihtiyacına göre çeşitli görevleri yerine getirmek için birçok yerleşik operatöre sahiptir.

	Operator	Type
Unary operator	+, -, ~	Unary operator
Binary operator	+, -, *, /, %	Arithmetic operator
	<, <=, >, >=, ==, !=	Relational operator
	&&, , !	Logical operator
	&, , <<, >>, ~, ^	Bitwise operator
	=, +=, -=, *=, /=, %=	Assignment operator
Ternary operator	?:	Ternary or conditional operator

ARİTMETİK OPERATÖRLER

Aritmetik Operatörler Operatörün Kullanımı

Toplama +

Çıkarma -

Çarpma *

Kesirli Bölme /

Tamsayı Bölme %

```
#include<stdio.h>

int main()
{
    int a = 12, b = 3;
    int addition, subtraction, multiplication, division, modulus;

    addition = a + b; //addition of 3 and 12
    subtraction = a - b; //subtract 3 from 12
    multiplication = a * b; //Multiplying both
    division = a / b; //dividing 12 by 3 (number of times)
    modulus = a % b; //calculation the remainder

    printf("Addition of two numbers a, b is : %d\n", addition);
    printf("Subtraction of two numbers a, b is : %d\n", subtraction);
    printf("Multiplication of two numbers a, b is : %d\n", multiplication);
    printf("Division of two numbers a, b is : %d\n", division);
    printf("Modulus of two numbers a, b is : %d\n", modulus);

}
```

Addition of two numbers a, b is : 15
Subtraction of two numbers a, b is : 9
Multiplication of two numbers a, b is : 36
Division of two numbers a, b is : 4
Modulus of two numbers a, b is : 0

BAĞLANTI OPERATÖRLER

Operatörler	C	PASCAL
Eşitlik	==	=
Eşit Değil	!=	<>
Büyüktür	>	>
Küçük Ya Da Eşit	<=	<=
Küçüktür	<	<
Büyük Ya Da Eşit	>=	>=

Relational Operators		Suppose X and Y are two variables
Operator	Expression	Description
<	X < Y	X is less than Y
<=	X <= Y	X is less than or equal to Y
>	X > Y	X is greater than Y
>=	X >= Y	X is greater than or equal to Y
==	X == Y	X is equal to Y
!=	X != Y	X is not equal to Y

Operators	Meanings
<	Is less than
<=	Is less than or equal to
>	Is greater than
>=	Is greater than or equal to
==	Is equal to
!=	Is not equal to

Table 2: Relational Operators in C

ÖZEL OPERATÖRLER

Artirma ++

Eksiltme --

Kosullu ?:

Yapi pointeri ->

Yapi uyeligi .

bir'in tumleyeni ~

operand'in buyuklugu sizeof()(byte cinsinden)

Operator	Name
++a	Increment (Pre)
a++	Increment (Post)
--a	Decrement (Pre)
a--	Decrement (Post)

++ : Increment Operator

```
int i = 2;
```

```
i = i + 1;
```

```
i++; or ++i;
```

Increment Operators

-- : Decrement Operator

```
int i = 2;
```

```
i = i - 1;
```

```
i--; or --i;
```

Decrement Operators

ATAMA OPERATÖRLERİ

Atama Operatörleri

Opertorün Kullanımı

Toplayarak Atama

`+=`

Çıkararak Atama

`-=`

Çarparak Atama

`*=`

Bölerek Atama

`/=`

Mod Alarak Atama

`%=`

Operator	Operation	Equivalent to
<code>=</code>	<code>num = 5</code>	<code>num = 5</code>
<code>+=</code>	<code>num+=5</code>	<code>num = num+5</code>
<code>-=</code>	<code>num-=5</code>	<code>num = num-5</code>
<code>*=</code>	<code>num*=5</code>	<code>num = num*5</code>
<code>/=</code>	<code>num/=5</code>	<code>num = num/5</code>
<code>%=</code>	<code>num%=5</code>	<code>num = num%5</code>

MANTIKSAL OPERATÖRLER

Bağlantı C Pascal

Ve && and

VEYA || or

Logical Operators Example Program

```
#include<stdio.h>
void main()
{
    int a, b;
    printf("Enter values for a and b : ");
    scanf("%d %d", &a, &b);
    printf("\n %d", (a<b)&&(a!=b));
    printf("\n %d", (a<b)|| (b<a));
    printf("\n %d", !(a==b));
}
```

KAYNAKÇA

- <https://www.geeksforgeeks.org/operators-in-c-set-2-relational-and-logical-operators/>
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