

Basic Operators

- Let's discuss , arithmetic, logical, assignment, and relational operators.
- An arithmetic operator is a mathematical function that takes two operands and performs a calculation on them.
- A logical operator (sometimes called a “Boolean operator”) is an operator that returns a Boolean result that’s based on the Boolean result of one or two other expressions.
- Assignment operators set variable equal to values.
 - Assigns the value of the expression at its right to the variable at its left
- A relational operator will compare variable against each other.

Logical Operators

Operator	Description	Example
&&	Called Logical AND operator. If both the operands are non-zero, then the condition becomes true.	(A && B) is false.
	Called Logical OR Operator. If any of the two operands is non-zero, then the condition becomes true.	(A B) is true.
!	Called Logical NOT Operator. It is used to reverse the logical state of its operand. If a condition is true, then Logical NOT operator will make it false.	!(A && B) is true.

Arithmetic Operators in C

Operator	Description	Example
+	Adds two operands.	A + B = 30
-	Subtracts second operand from the first.	A - B = -10
*	Multiplies both operands.	A * B = 200
/	Divides numerator by de-numerator.	B / A = 2
%	Modulus Operator and remainder of after an integer division.	B % A = 0
++	Increment operator increases the integer value by one.	A++ = 11
--	Decrement operator decreases the integer value by one.	A-- = 9

Assignment Operators

Operator	Description	Example
=	Simple assignment operator	$C = A + B$ will assign the value of $A + B$ to C
+=	Add AND assignment operator. It adds the right operand to the left operand and assign the result to the left operand.	$C += A$ is equivalent to $C = C + A$
-=	Subtract AND assignment operator. It subtracts the right operand from the left operand and assigns the result to the left operand.	$C -= A$ is equivalent to $C = C - A$
*=	Multiply AND assignment operator. It multiplies the right operand with the left operand and assigns the result to the left operand.	$C *= A$ is equivalent to $C = C * A$

Assignment Operators (cont'd)

Operator	Description	Example
/=	Divide AND assignment operator. It divides the left operand with the right operand and assigns the result to the left operand.	$C /= A$ is equivalent to $C = C / A$
%=	Modulus AND assignment operator. It takes modulus using two operands and assigns the result to the left operand.	$C \% = A$ is equivalent to $C = C \% A$
<<=	Left shift AND assignment operator.	$C <<= 2$ is same as $C = C << 2$
>>=	Right shift AND assignment operator.	$C >>= 2$ is same as $C = C >> 2$
&=	Bitwise AND assignment operator.	$C \&= 2$ is same as $C = C \& 2$
^=	Bitwise exclusive OR and assignment operator.	$C \wedge= 2$ is same as $C = C \wedge 2$
=	Bitwise inclusive OR and assignment operator.	$C = 2$ is same as $C = C 2$

Relational Operators

Operator	Description	Example
==	Checks if the values of two operands are equal or not. If yes, then the condition becomes true.	(A == B) is not true.
!=	Checks if the values of two operands are equal or not. If the values are not equal, then the condition becomes true.	(A != B) is true.
>	Checks if the value of left operand is greater than the value of right operand. If yes, then the condition becomes true.	(A > B) is not true.
<	Checks if the value of left operand is less than the value of right operand. If yes, then the condition becomes true.	(A < B) is true.
>=	Checks if the value of left operand is greater than or equal to the value of right operand. If yes, then the condition becomes true.	(A >= B) is not true.
<=	Checks if the value of left operand is less than or equal to the value of right operand. If yes, then the condition becomes true.	(A <= B) is true.