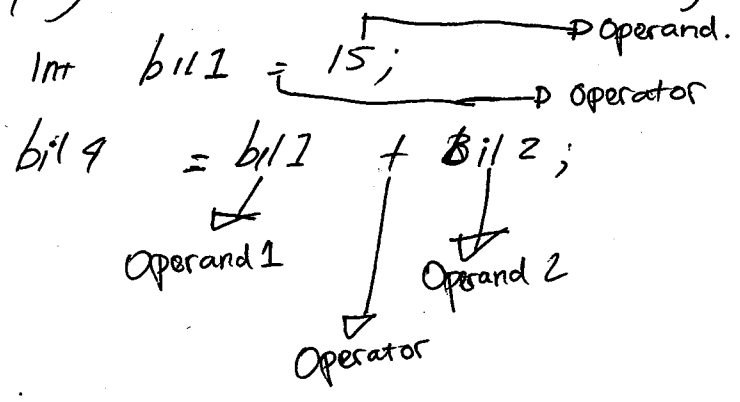# Operator - SA Training   03 - Agustus - 2023.

Operator adalah simbol yang digunakan untuk melakukan operasi tertentu.
yang melibatkan satu, dua atau tiga operando dan memberikan hasil

Int   bil1 = 15;

→ Operand.

→ Operator

bil 4   = bil1 + bil2;

Operand 1

Operator

Operand 2

Operator

parentheses	=	( )	=	16	=	left to right
U posifix = Expr ++, Expr --	=	15	=	left to right
Unary : ++ expr, -- expr, + expr, - expr	=	14	=	Right to left
Multiplicative : */%			=	12	=	left to right
additive : + -			=	11	=	left to right
relational : < > <= >=			=	9	=	left to right
equality : == !=			=	8	=	left to right
Logical AND : &&			=	4	=	left to right
Logical OR = ||			=	3	=	left to right
Ternary = ? :			=	2	=	Right to left
assignment : += -= *= /= %= :			=	1	=	Right to left.

Expression

bil 5 : 10
bil3 : bil1 + bil2

Statement

bil 5 : 10
bil 3 = bil1 + bil2.

bil4 = -;
++ bil4;
System.out.println ("Hello world");

Statement

bil 5 = 10 →

operator unary
unary posifix
unary prefix

Expression Posifix
Operand {Operator}

Expression prefix
{Operator} Operand.

Expr ++, Expr -- : 15

Operator ++ berguna
untuk penambahan 1 nilai
Operator -- berguna
untuk mengurangi 1 nilai
dari nilai Variabel

Operator	Type data	Penjelasan
expr ++, ++ expr	byte, Short, Int Long, float, double	menambah 1 nilai kedalam Variable
expr --, --expr	byte, Short, Int Long, Float, double	mengurangi 1 nilai dari Variable
+ expr	"	memberikan nilai positif pada Variable.
- expr	"	memberikan nilai negatif pada Variable.
!	boolean	mengubah nilai false menjadi True atau Sebaliknya.

Operator comparison

Relational $\quad <>, <= >=$
equality $\qquad ==, != =$

```
bil1 = 10;
bil2 = 11;
```

Lessthan = bil1 < bil2;
greaterthan = bil1 > bil2;
LessthanEqual = bil1 <= bil2;
greaterthan Equal = bil1 >= bil2;
Equal = bil1 == bil2;
Not Equal = bil1 != bil2;

Lessthan = $\quad 10 < 11 \quad = $ True
greater than: $10 > 11 \quad =$ False
Less than Equal: $10 <= 11 = $ True
greater than Equal = $10 > 11 =$ false
Equal = $\quad 10 == 11 \quad = $ false
Not Equal: $10 != 11 = $ True.

Operator conditional

Logical AND	&&
Logical OR	||
Ternary	? :

Expression

Operand1 {Operator} Operand2
Ternary
Variable = (expression) ? Value If true:
              Value If false

Expression

Operand1 Operator Operand2.

Logical And.

hanya akan memberikan nilai "True"
Jika kedua nilai operandnya True

Logical OR

hanya akan memberikan nilai "False"
Jika kedua nilai operandnya False