

# Array

Array is a object container that can hold a fixed number of values of same data type.  
Length of an array is fixed we need to define its size once we create it.

```
Int array[]=new int[10];
```

Size or length is 10

Index start and end at 0 to 9

## Operators

Operator Type	Category	Precedence
Unary	postfix	<i>expr++ expr--</i>
	prefix	<i>++expr --expr +expr -expr ~ !</i>
Arithmetic	multiplicative	<i>* / %</i>
	additive	<i>+ -</i>
Shift	shift	<i>&lt;&lt; &gt;&gt; &gt;&gt;&gt;</i>
Relational	comparison	<i>&lt; &gt; &lt;= &gt;= instanceof</i>
	equality	<i>== !=</i>
Bitwise	bitwise AND	<i>&amp;</i>
	bitwise exclusive OR	<i>^</i>
	bitwise inclusive OR	<i> </i>
Logical	logical AND	<i>&amp;&amp;</i>
	logical OR	<i>  </i>
Ternary	ternary	<i>? :</i>
Assignment	assignment	<i>= += -= *= /= %=&amp;= ^=  = &lt;&lt;= &gt;&gt;=</i>

## Simple Assignment Operator

=      Simple assignment operator

## Arithmetic Operators

+      Additive operator (also used  
         for String concatenation)  
-      Subtraction operator  
\*      Multiplication operator  
/      Division operator  
%      Remainder operator

## Unary Operators

+      Unary plus operator; indicates  
         positive value (numbers are  
         positive without this, however)  
-      Unary minus operator; negates  
         an expression  
++     Increment operator; increments  
         a value by 1  
--     Decrement operator; decrements  
         a value by 1  
!      Logical complement operator;  
         inverts the value of a boolean

## Equality and Relational Operators

==     Equal to  
!=     Not equal to  
>     Greater than  
>=    Greater than or equal to  
<     Less than  
<=    Less than or equal to

## Conditional Operators

&&     Conditional-AND  
||     Conditional-OR  
?:     Ternary (shorthand for  
         if-then-else statement)

## Type Comparison Operator

instanceof    Compares an object to  
                 a specified type

## Bitwise and Bit Shift Operators

~	Unary bitwise complement
<<	Signed left shift
>>	Signed right shift
>>>	Unsigned right shift
&	Bitwise AND
^	Bitwise exclusive OR
	Bitwise inclusive OR

## While and do-while loop

While loop continuously execute a block of code until the test condition is false.

```
While(condition)
{
    (Statement);
}
```

Do-while loop is

Do

```
{Statement}
```

```
While(condition)
```

In do while loop condition is evaluate after the statement is execute

Only difference between while and do-while loop is in do-while loop condition is evaluate at the bottom of the loop so the statement will execute at least once.

## Break Statement

break statement is use to stop a on going for, while and do-while loop