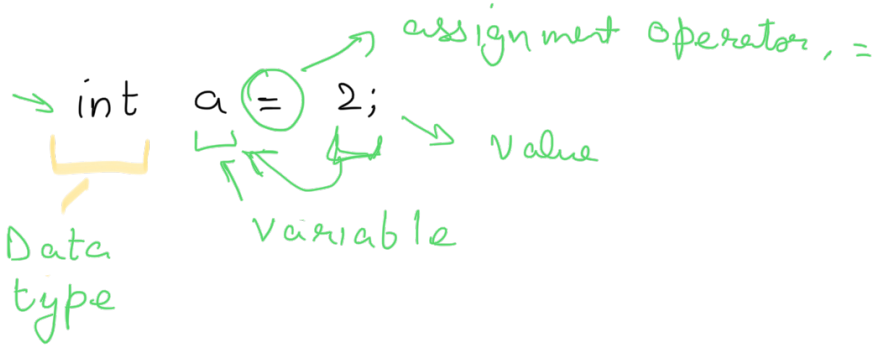
JAVA BASICS



① alphabets, numbers, special characters
a, B, , 0, 9 is -

② Can't start with numbers

③ Keywords x

Operators

① Arithmatic operators

+, -, *, /, %.

```
int a = 2;
int b = 3;
int c = a+b;
```

```
int a = 5;
int b = 10;
syso (b % a)      10/5
                  // 2
```

// 0

% → Remainder

10 % 3 => // 1

② Unary Operator
// 1 Operand

Increment | Decrement | Negate | +,

Increment Operator

→ Pre Increment ++a

→ Post Increment a++

int a = 1;

→ int b = ++a;

a = 2

b = 2;

a = 1

print => ++a + a++

↑ 2 (pre) — + operator — 2 ↑ (post)

// 4

int a = 1

int b = a++ ;

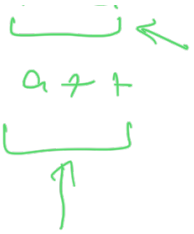
b = 1

a = 2

a = 1 2 3

a = 3

++a



① First use the original value
② Increments

```
int a = 5;
int b = ++a;
int c = a++;
int d = ++c;
```

a = 6 6 7
b = 6
c = 6 7
d = 7

a = 7
b = 6
c = 7
d = 7

Decrement Operators
→ Pre decrement --a
→ Post decrement a--

⇒ boolean a = !true;
// a = false

+ ⇒ int a = +5;
- ⇒ int b = -5;

③ Relational operators

>, <, >=, <=, ==, !=

comparison — equality

```
int a = 2;
int b = 3;

a > b   // false
a < b   //
a <= b
a >= b  - //
a == b  // F
a != b  // true
```

(4) Logical Operators

→ AND &&

→ OR ||

true && true ⇒ true

true || true ⇒ true

false && true ⇒ false

false || true ⇒ true

(5) Ternary Operator ? :

(boolean condition) ? ___ : ___

↑ — in true — in false

a = 1
b = 2

```
int c = a < b ? 3 : 4;
```

3 ↑ true — 4 ↑ false

int c = false ? 4 : 5;

// c = 5

(6) Assignment Operators

=, +=, -=, *=, /=, %=

int a = 2;

+=

int a = 2;

a += 3;

a = a + 3;

2 + 3 → 5

a = 2 → 5

a += 3

int c = 3

c -= 4;

c = c - 4

c += 4

c = c + 4

c *= 4

c = c *

c /= 3

c = c / 3

c %= 3

c = c % 3

Conditional Statement

if (a

```
a = 19
if ( a >= 18 )
{
    Syso ( " A is an adult " );
} else {
    syso ("A is minor");
}
```

if block

else block

// A is minor

else if

age < 18 mino

age >= 18 < 60
young

age >= 60
→ old

```
if (age < 18 )
{
    syso "minor";
} else if (age < 60 && age >= 18 )
{
}
```

```
        syso "young"
    }
    else
    {
        syso "old";
    }
```

nested if else

```
age (24)
if (age > 18)
{
    if (age < 30)
    {
        syso "Age is less than 30"
    }
    else
    {
        syso "Age is greater than 30"
    }
}
//
```