

Print

→ `System.out.println("Hello World");`

→ `;` → one line of code has ended

→ `System.out.println("Elephant");`

next line

↳ brings the cursor to next line.

Data types

→ Primitives → hold only a single type of value
→ Non-primitives ×

Variables

`int a = 5`
↓
data type

abc
cat
dog
5

'a'

`['a']` 'b'

⇒ 8 types of primitive data types

-128 to 127
[byte short int long]
↓
integer

float
double
↓
decimal value

char

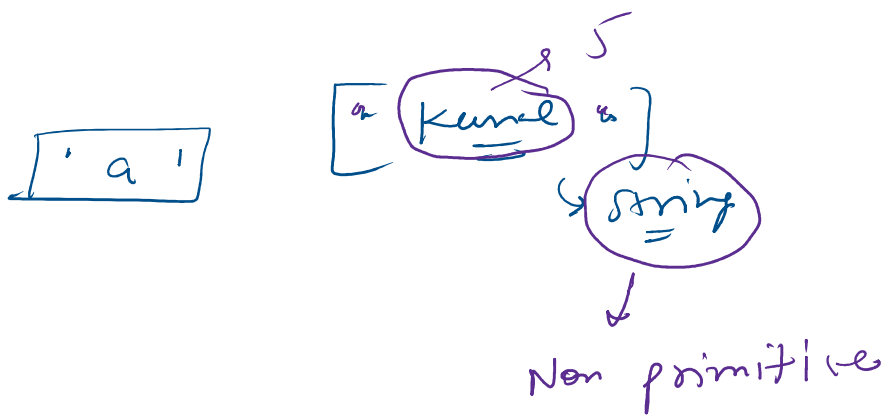
boolean

↓
true / false

0) float , Boolean
print

How to take input in Java.

Scanner sc = new Scanner(System.in);



String + int \Rightarrow String

String + int \Rightarrow String } Type casting

Basic Mathematical operators

$\rightarrow + \Rightarrow 5+5=10$
 $\rightarrow - \Rightarrow 7-5=-2$
 $\rightarrow * \Rightarrow 5*2=10$

\rightarrow quotient

\rightarrow divide \rightarrow quo
 \rightarrow modulo \rightarrow remainder

→ * ⇒ $5 * 2 = 10$
 → /
 → %

$5 \overline{) 13}$
 2 → quotient
 10
 3 → remainder

10
 remainder
 $13 / 5 = 2$
 $13 \% 5 = 3$

$\text{int } a = 5;$
 declaration initialization

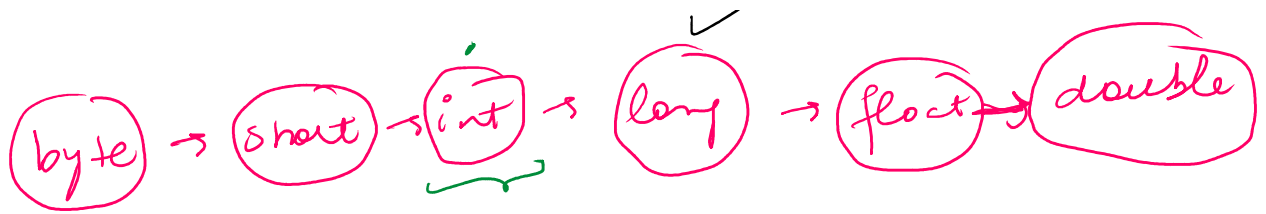
→ $\text{string} + \text{int} \Rightarrow \text{string}$ } Type casting

Type casting
 ↳ process of converting one data type into another

→ [implicit] → [explicit]
 → [explicit]

$\text{int} + \text{float}$

... → double



long d = 5000

int e = 10000

String + double

5.3 + 5
double + int

Relational operators → boolean

== < > <= >=

→ 10 > 5

→ 5 < 3

→ 10 >= 5

→ 5 >= 5

→ 11 <= 10

→ 10 <= 10

age >= 18 → allowed
→ not allowed

Conditionals

[if - else]

```

if ( condition ) {
    //
}

```

```

if (age >= 18) {
    sent("allowed")
}

```

```

else {
    sent("Not allowed")
}

```

```

}
else {
  //
}

```

```

else {
  sent( ~ Not allowed )
}

```

[=] → assignment
 [==] → comparison
 → boolean

[b = 5]
 [b == 5] true

b
 [5]

→ if can exist without else

[if (~) { }]

~~else { }~~

if-else ladder

if-else ladder

```

if ( ~ )
{
    // ...
}
else if ( ~ )
{
    // ...
}
else if ( ~ ) { }
:
else { }

```

6) Num input
'Even, odd' ?

⊗ Not equal $\downarrow =$
5 $\downarrow = 3 \rightarrow \text{True}$

10 $\downarrow = 10$