



Today's agenda

↳ Intro

↳ output

↳ operators

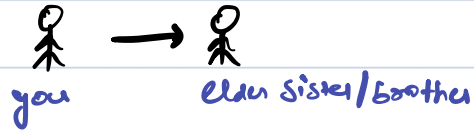
↳ Data types



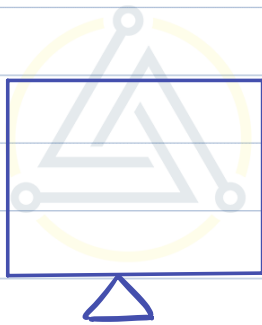
AlgoPrep



* Computer is ! → Dumb



- a) get up from bed
- b) go to kitchen
- c) get a glass
- d) fill glass with water
- e) bring the glass to me.



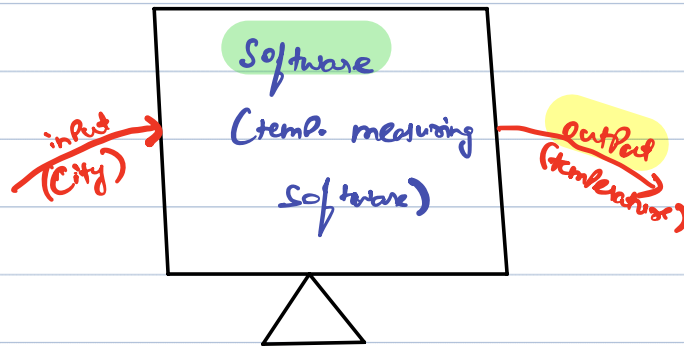
o/s
binary
number

Compiler

Java / C++ / C / Python
JS etc.

→ english → rules → grammar

→ java → we will follow certain rules.
↳ Syntax



IDE

↳ Integrated development environment.

↳ Eclipse / IntelliJ / VScode etc.

Online

ide/editors

Rule 1:

① output → rule

↳ `System.out.println(10);` → 10

↳ next line → It will press enter after Printing

`System.out.println(7);` → 7

↳ `System.out.print(10);`

↳ `System.out.print(50);`

↳ `System.out.println(80);`

↳ `System.out.print(100);`

output

105080

↓
100



Ex: `System.out.print(7*10);` → 70

`System.out.print(50/5);` → 10

↳ Double quote printing

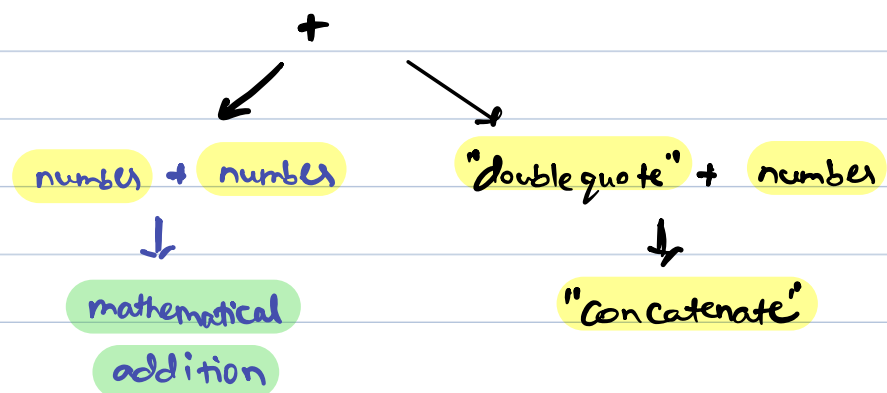
`System.out.println("7*10");` → 7*10

↳ Plus sign in output

`System.out.println(7*10+"hello");` → 70hello

`System.out.println("hello"+7*10);` → hello70

`System.out.println("hello"+7+10);`





* operators

↳ + - * / () → BODMAS

$$\downarrow$$
$$5 + 5 \div 5 = 6$$

↳ myth buster

Rank 1: ()

Rank 2: ÷

Rank 3: *

Rank 2: Divide / multiply

↳ Computer will process left to right.

Rank 4: +

Rank: -

Rank 3: add / subtract

↳

Break till 9:40 PM



* Data types

↳ numbers, characters, boolean etc.

Integer

decimal

true false



1

2

3

⋮

⋮

⋮

⋮

⋮

⋮

⋮

10

add 2 numbers

↓
receive number → variables

Let the first number be x

↓
variables

→ `int x;`
`x = 20;`
`x = 30;`

→ `int x;`
`x = 100;`
Type name
↑ ↑
equivalent value

= ← assignment

↳ right side to left side



Ex1:

```
int temp;
```

```
temp = 20;
```

```
temp = 100;
```

```
→ System.out.println(temp); → 100
```

temp
20
100

Ex2:

```
int temp;
```

```
temp = 20;
```

```
System.out.println(temp); → 20
```

```
temp = 100;
```

```
System.out.println(temp); → 100
```

100
20
temp

Ex3:

```
int temp;
```

```
temp = 100
```

100
temp

```
↳ int temp;
```

```
temp = 20;
```

temp

```
System.out.println(temp);
```

↳ Same name can't be created again.



Creating variables

1st way

```
int temp;  
temp = 20;
```

↙ declare
↑ initialization

2nd way

```
int temp = 20;
```

↳ both declare
& initialize in same line.



AlgoPrep



// Input

↳ Scanner ^{name}sch = new Scanner ^{once in a code}(System.in);

int temp = sch.nextInt();

↓
integer

No such element exception → Not given the input.



AlgoPrep