Java Syntax :

Every line of code that runs in Java must be inside a "class" or A class should always strat with an uppercase first letter.

* Java is case-sensitive : "My class" or "my class" has different meaning.

Java file must match the class name.

saving the file ⇒ using the class name ⇒ add ".java" to the end of the filename

The main Method :

Any code inside the main() method will be executed.

that every Java program has a class name which must match the filename &
that every program must contain the main() method

System.out.println() :

Println() method to print a line of text to the screen.

{ } ⇒ beginning or end of a block of code

out ⇒ output

println() ⇒ "print line"

each code end with a semicolon (;) :

Java output / print :

Print text :

Println() method to output values or print text in Java.

Ex :

```
System.out.println("Hello world!");
```

Double quotes : The text, it must be wrapped inside double quotations (" "), otherwise error occurs.

Ex:

```
System.out.println("This sentence...");
```

The Print() Method :

print() method similar to println(), it does not insert a new line at the end of the output.

Ex:

```
System.out.print("Hello world");
```

Print Numbers :

We use println() method to print numbers.
We don't put numbers inside double quotes

EX: system.out.println(3);

We can also perform mathematical calculations;

EX: system.out.println(3+3);

Java comments :

It is used to explain Java code & to make it more readable

Single-line comments

It start with two forward slashes (//)

Any text between // and the end of the line is ignored by Java (will not be executed)

EX:

system.out.println("Hello world"); // This is comment

Java multi-line comments :

It start with /* and ends with */

Any text between /* & */ will be ignored.

EX:

/* the code below ... */ System.out.println("Hello world");

Java Variables :

variables are containers for storing data values. In Java, there are Different types of variables ;

* String - stores text ("Hello")
* int - stores integers (whole numbers) (123) (without decimals)
* float - stores floating point numbers with decimals (19.99)
* char - stores single characters; such as 'a' or 'B'
  it is surrounded by single quotes
* boolean - stores values with two states : (true or false)

Declaring (creating) variables

to create a variable, you must specify the type & assign it a value

Syntax:

type variable name = value ;

- type → (Int or String)
- variable name → (x or name)

equal sign (=) is used to assign values to the variable

Ex:

* String name = "John";
  System.out.println(name);

* int MyNum = 15;
  system.out.println(my name);

Final variables:

(This will declare the variable as "final" or "constant", which means unchangeable & read-only)

Ex:

```
final int myNum = 15;
MyNum = 20;
```