



**SYNTAX**  
TECHNOLOGIES

JAVA

Class 2

# Agenda

String Class

String Concatenation

Arithmetic Operators in Java

# String

String is a class present in java.lang package to represent group of characters enclosed within double quotes.

Example:

```
String schoolName="Syntax";  
System.out.println(schoolName);
```

# String Concatenation

Java string concatenation operator (+) is used to add/join/combine Strings to any value

```
1 package com.class1;
2
3 public class Variables {
4
5     public static void main(String[] args) {
6
7         String name="John";
8         String lastName="Smith";
9         char grade='A';
10        String city="Fairfax";
11        String state="VA";
12        int phoneNumber=1234567890;
13
14        System.out.println("My name is "+name);
15        System.out.println("My last name is "+lastName);
16        System.out.println("My grade is "+grade);
17        System.out.println("I live in city of "+city);
18        System.out.println("I live in state of "+state);
19        System.out.println("My phone number is "+phoneNumber);
20    }
21 }
```

Console

<terminated> Variables [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0\_144.jdk/Contents/Home/bin/java (Feb 16, 2019, 9:35:32 PM)

```
My name is John
My last name is Smith
My grade is A
I live in city of Fairfax
I live in state of VA
My phone number is 1234567890
```

# Operators in Java

## Assignment Operator

One of the most common operators that you'll encounter is the simple assignment operator "=".

```
int b=20;  
String name="Syntax";
```

# Operators in Java

## Arithmetic Operators

Operator	Description
+	For Addition
-	For Subtraction
*	For Multiplication
/	For Division
%	MOD - For Remainder

# Modulus Operators in Java

The modulus operator (%) returns the remainder of a division operation.

It can be applied to floating-point types as well as integer types.

```
1 package com.class1;
2
3 public class Modulus {
4
5     public static void main(String[] args) {
6         int a=10;
7         int b=3;
8
9         int remainder=a%b;
10        System.out.println(remainder);
11
12    }
13 }
```

Console

<terminated> Modulus [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0\_144.jdk/Contents/Home/bin/java

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# Compound Assignment /Shorthand Operators

- A shorthand operator is a shorter way to express something that is already available in the Java programming language
- Shorthand operations do not add any feature to the Java programming language

Operator	Name	Example	Equivalent
<code>+=</code>	Addition assignment	<code>i+=5;</code>	<code>i=i+5</code>
<code>-=</code>	Subtraction assignment	<code>j-=10;</code>	<code>j=j-10;</code>
<code>*=</code>	Multiplication assignment	<code>k*=2;</code>	<code>k=k*2;</code>
<code>/=</code>	Division assignment	<code>x/=10;</code>	<code>x=x/10;</code>
<code>%=</code>	Remainder assignment	<code>a%=4;</code>	<code>a=a%4;</code>



# Games

<https://www.codemoji.com/lessons/java/expert/1.php>

<https://scratch.mit.edu/projects/editor/?tutorial=getStarted>