JAVA BASICS

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Let's start

- Create new project
  - Java version and runtime
  - File structure
  - Creating first Main class.

- Example of what is programing

1.Variables & 2.Objects

	NOMBRE	TIPO	OCUPA	RANGO APROXIMADO	DEFECTO
TIPOS PRIMITIVOS (sin métodos; no son objetos; no necesitan una invocación para ser creados)	byte	Entero	1 byte	-128 a 127	0
	short	Entero	2 bytes	-32768 a 32767	0
	int	Entero	4 bytes	-2147483648 a 2147483647	0
	long	Entero	8 bytes	-9223372036854775808 a 9223372036854775807	0
	float	Decimal simple	4 bytes	-3.402823e38 a 3.402823e38	0.0
	double	Decimal doble	8 bytes	Muy grande	0.0
	char	Carácter simple	2 bytes	---	\u0000
	boolean	Valor true o false	1 byte	---	false
TIPOS OBJETO (con métodos, necesitan una invocación para ser creados)	Tipos de la biblioteca estándar de Java	String (cadenas de texto) Muchos otros (p.ej. Scanner, TreeSet, ArrayList…)			
	Tipos definidos por el programador / usuario	Cualquiera que se nos ocurra, por ejemplo Taxi, Autobus, Tranvia			

	arrays	Serie de elementos o formación tipo vector o matriz. Lo consideraremos un objeto especial que carece de métodos.	
	Tipos envoltorio o wrapper (Equivalentes a los tipos primitivos pero como objetos.)	Byte	
		Short	
		Integer	
		Long	
		Float	
		Double	
		Character	
		Boolean	

3. Reserved words

```
abstract
assert
boolean
break
byte
case
catch
char
class
const
continue
default
do
double
else
enum
extends
final
finally
float
for
goto
if
implements
import
instanceof
int
interface
long
native
new
package
private
protected
public
return
short
static
strictfp
super
switch
synchronized
this
throw
throws
transient
try
void
volatile
while
```

4.Operations

Arithmetic Operators

Operator	Name	Description	Example
+	Addition	Adds together two values	x + y
-	Subtraction	Subtracts one value from another	x - y
*	Multiplication	Multiplies two values	x * y
/	Division	Divides one value from another	x / y
%	Modulus	Returns the division remainder	x % y
++	Increment	Increases the value of a variable by 1	++x
--	Decrement	Decreases the value of a variable by 1	--x

Java Assignment Operators

Operator	Example	Same As
=	x = 5	x = 5
+=	x += 3	x = x + 3
-=	x -= 3	x = x - 3
*=	x *= 3	x = x * 3
/=	x /= 3	x = x / 3
%=	x %= 3	x = x % 3
&=	x &= 3	x = x & 3
|=	x |= 3	x = x | 3
^=	x ^= 3	x = x ^ 3
>>=	x >>= 3	x = x >> 3
<<=	x <<= 3	x = x << 3

Java Comparison Operators

Operator	Name	Example
==	Equal to	x == y
!=	Not equal	x != y
>	Greater than	x > y
<	Less than	x < y
>=	Greater than or equal to	x >= y
<=	Less than or equal to	x <= y

Java Logical Operators

Operator	Name	Description	Example
&&	Logical and	Returns true if both statements are true	x < 5 && x < 10
||	Logical or	Returns true if one of the statements is true	x < 5 || x < 4
!	Logical not	Reverse the result, returns false if the result is true	!(x < 5 && x < 10)

5.Conditions

- if, else, else if.
- Switch

6.Methods

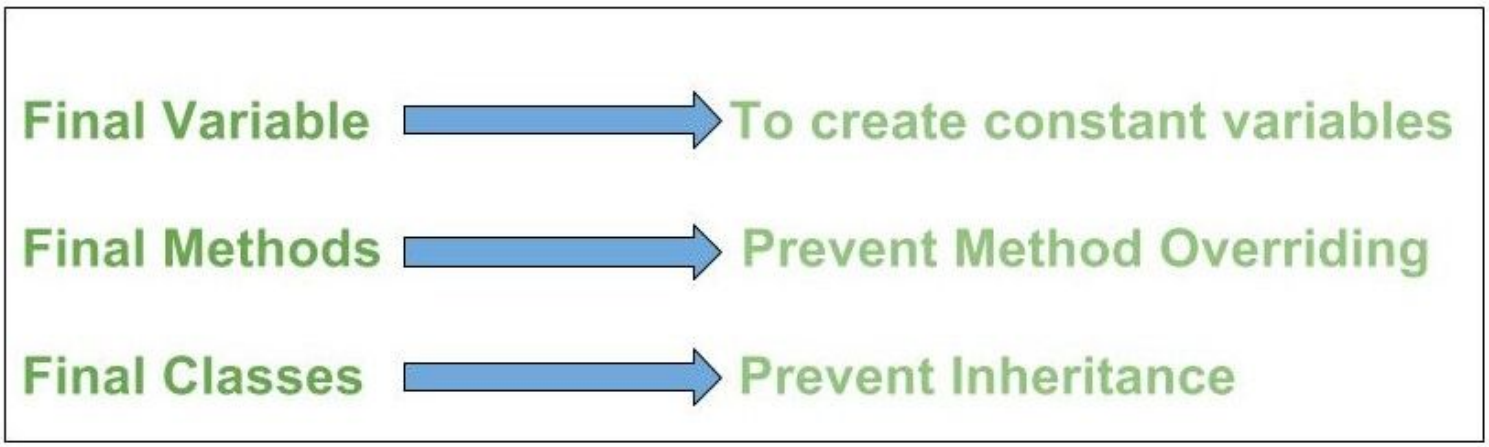
- Types of methods (with and without variables)
- Create a method
- Call a method

7.Classes

- Clases overview
- Create a class
- Use a class

8.Keywords

- Public, private
- Final



- Static
  - We can create static variables at class-level only. See here

- static block and static variables are executed in order they are present in a program.

9.Libraries

- Examples (Math, array)
- Imports
- Packages

10.Inheritance