Things that are *identical* in Java and C

- Lineage from C to Java
 - "Evolution" from C to Java

 1969: Dennis Ritchie developed C at <i>Bell Labs</i> to write the UNIX operating system
 C is a lean and mean programming language It is still one of the most popular languages in the world: click here and click here
1979: Bjarne Stroustrup at Bell Labs added object oriented features to C and called the new language C++. (click here)
 C++ started out as a very useful <i>object-oriented</i> extension of C But new features are continuously being added to C++ and it became a montrosity
Just Google "C++ monstrosity" and you will find quite a few complains on C++: <u>click here</u>
 1995: James Gosling at Sun Microsystem has enough of the C++ crap and developed a stripped down and safer version of a C-styled object-oriented language called Java (click here)

• Due to the fact that Java is derived (indirectly) from C, and the fact that you already know Java, you have seen many features of C already !!!

• This webpage contain **some** of the things that are **identical** in **Java** and **C**.

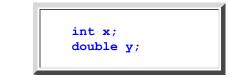
• Data types

- Similar data types in C and Java
 - int
 - short
 - long



• Variable definition syntax

• Syntax to define variables:

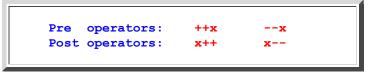


- Arithmetic operators
 - Arithmentic operators: (add, subtract, multiply, divide, (modulo))

	Integer: Float:	+ +	-	*	//	ઙ	
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• Increment/decrement operators

• Increment/decrement operators: (++, --)



• Assignment operators

• Assignment operators:

Integer Assignment operators: += -= *= /= %=
Float Assignment operators: += -= *= /=

• Comparison and Logical operators

• **Comaprison operators**: (less than, less than or equal, and so on)



• Logical operators: (And, Or, Not)



• Statements

• Syntax of **all statements** (assignment, if, if-else, switch, while, for, do) are **identical** in **C** and **Java**

Examples:

```
x = (a + b) * (c + d % e);

if ( a > b )
	max = a;
else
	max = b;

while ( x < 10 )
	x++;

for ( i = 0; i < n; i++ )
	sum += i;
```

• Break and continue

• The **break** and **continue** statements in **C** and **Java** have the **same meaning**:

break: exit a **switch** or a **loop** statement

continue: start the next iteration of a loop statement immediately