

Java Language

- comparison with C++
- naming conventions

Java vs C++

Common

- operations: +=<>...
- order of operations
- loops: for, while, do...while
- flow control: if, switch
- operator new
- references

Different

- Only classes (class, interface, enum)
- No headers (interfaces instead of them)
- One file – one class
- Name of the file == name of the class
- No pointers
- No constant references
- All classes extends class Object
- No *delete*, creation by *new* only*
- Operators can't be overloaded
- One can get information about the class in run time (reflection)
- A class can have only one super class
- No *size_of*

Naming Conventions

Identifier Type	Rules for Naming	Examples
Packages	<p>The prefix of a unique package name is always written in all-lowercase ASCII letters and should be one of the top-level domain names</p> <p>Subsequent components of the package name vary according to an organization's own internal naming conventions.</p>	<p>com.sun.eng</p> <p>com.apple.quicktime.v2</p> <p>edu.cmu.cs.bovik.cheese</p>
Classes	<p>Class names should be nouns, in mixed case with the first letter of each internal word capitalized.</p>	<p>class Raster;</p> <p>class ImageSprite;</p> <p>class FlowersFactory;</p>
Interfaces	<p>Interface names should be capitalized like class names.</p>	<p>interface RasterDelegate;</p> <p>interface Storing;</p>

Methods	Methods should be verbs, in mixed case with the first letter lowercase, with the first letter of each internal word capitalized.	<code>run();</code> <code>runFast();</code> <code>getBackground();</code>
Variables	Variables should be nouns in mixed case with a lowercase first letter.	<code>int i;</code> <code>char c;</code> <code>float myWidth;</code>
Constants	Constants should be all uppercase with words separated by underscores ("_")	<code>static final int MIN_WIDTH = 4;</code> <code>static final int MAX_WIDTH = 9;</code>