

# JAVA: Object Oriented Programming

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# Outline

- 1 Introduction to JAVA
- 2 Quick Get Started
- 3 Object Oriented Programming
- 4 Examples

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# History

- 1991, Sun, Naughton and Gosling, ``Green" project.
  - They designed a programming language for consumer devices like cable TV switchboxes.
  - They designed a virtual machine to make the language not be tied to any single architecture.
  - The new programming language and virtual machine are implemented in C++.
- 1995, SunWorld, HotJava browser.
  - HotJava browser can execute code inside web pages!
- 1996, Java 1.0 and Java 1.1
- 1998, JavaOne, Java 1.2
- 2000, Java 1.3
- 2002, Java 1.4, regular expression

# History 2

- 2004, Java 5.0, generic types, ``for each" loop and ...
- 2006, Java 6, JDBC, Scripting Language support, new GC
- 2011, Java 7, JVM support for dynamic languages
- 2014, Java 8, lambda expression, Win XP is not officially supported

# Current

- Large-scale systems: ERP, EMR, EHR and ...
- Cross-platform applications: Web, PC, Mobile ...
- Big data systems: Hadoop, Spark, Storm
- JVM languages: Cloujure, Scala  
[http://en.wikipedia.org/wiki/List\\_of\\_JVM\\_languages](http://en.wikipedia.org/wiki/List_of_JVM_languages)



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# Websites

## Websites

- java.com for user
- <http://www.oracle.com/technetwork/java/index.html>
- jcp.org
- TheServerSide.com
- ITEye.com (in Chinese)
- importnew.com (in Chinese)

# Books

## Books

- Core Java, 8th Edition  
Java核心技术
- Thinking in Java, 4th Edition  
Java编程思想
- Effective Java

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```
public class HelloJava{  
  
    public static void main(String[] args) {  
        System.out.println("Hello Java!");  
    }  
  
}
```

```
$javac HelloJava.java
```

```
$java HelloJava
```

```
Hello Java!
```

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# How to Run Java programs?

You need Java Runtime Environment!  
[java.com](http://java.com)

# How to Develop Java programs?

You need Java Development Kit!

# Installation of JDK

## Installation

- JDK 8 or JDK 7?
- <http://www.oracle.com/us/downloads/index.html>
- Java SE 8u25 or Java SE 7u71

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# Eclipse

[www.eclipse.org](http://www.eclipse.org)

# Hello Java in Eclipse

- Start Eclipse
- File - New - Java Project
- File - New - Class
- Input codes
- Run

# NetBeans

<https://netbeans.org/>

# Hello Java in NetBeans

- Start Netbeans
- File - New - Project
- Input codes
- Run Project



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# Ant



# Maven

body

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