

Java History

Background information about Java
and how the background affected
it's development

James Tam

Java: History

- Computers of the past

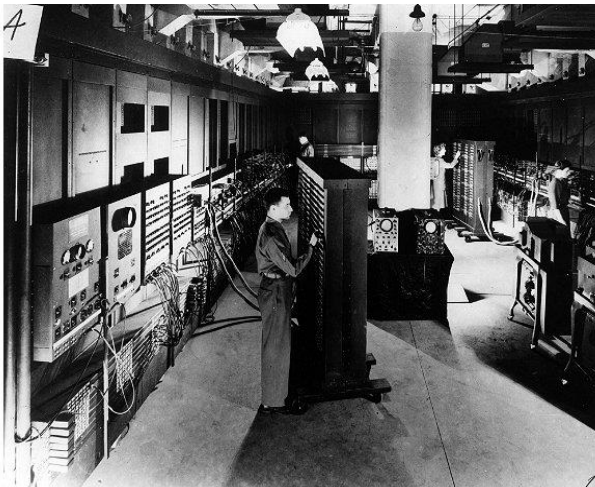


Image © University of Pennsylvania

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Java: History (2)

- The invention of the microprocessor revolutionized computers



From the "Intel museum" www.intel.com

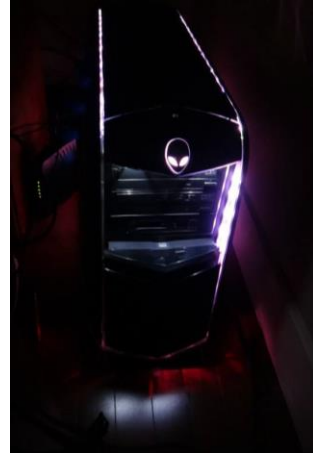
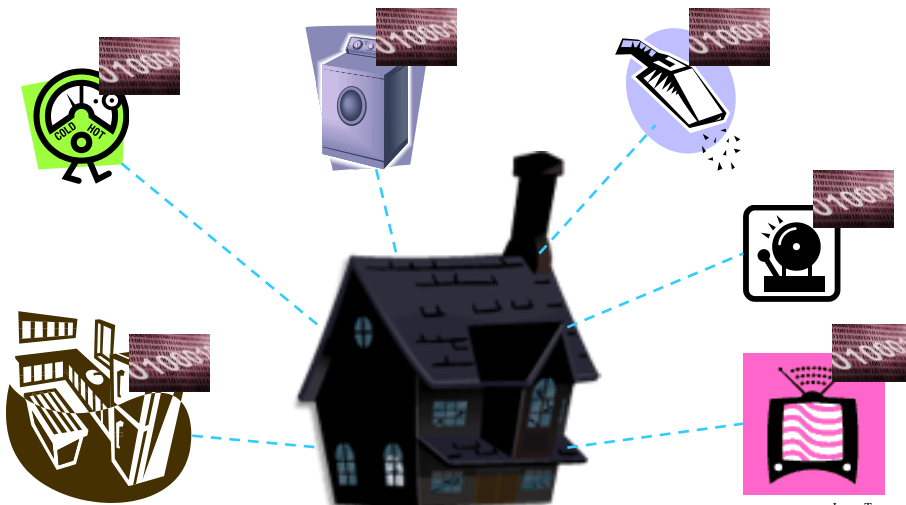


Image courtesy of James Tam

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Java: History (3)

- It was believed that the logical next step for microprocessors was to have them run intelligent consumer electronics



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Java History (4)

- Sun Microsystems funded an internal research project “Green” to investigate this opportunity.
 - Result: A programming language called “Oak”



Alumnus James Gosling was voted as the fourth greatest IT person of all time. / External Relations Photo Bank

Blatant advertisement: James Gosling was a graduate of the U of C Computer Science program.

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Java History (5)

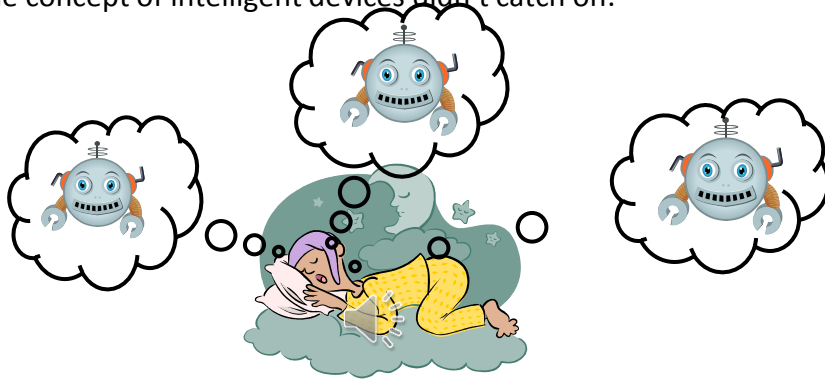
- Problem: There was already a programming language called Oak.
- The “Green” team met at a local coffee shop to come up with another name...
 - Java!



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Java: History (6)

- The concept of intelligent devices didn't catch on.



- Project Green and work on the Java language was nearly canceled.

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Java: History (7)

- The popularity of the Internet resulted in Sun's re-focusing of Java on computers.
- Prior to the advent of Java, web pages allowed you to download only text and images.

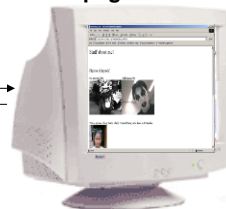
Your computer at home
running a web browser



User clicks on a link

Images and text get
downloaded

Server containing a
web page



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Java: History (8)

- Java enabled web browsers allowed for the downloading of programs (Applets).
- Java is still used in this context today:
 - Facebook (older version)
 - Hotmail (older version)

Your computer at home
running a web browser



Server containing
a web page



User clicks on a link

Java Applet downloaded

Java version of the Game of Life: <http://www.bitstorm.org/gameoflife/>

Online checkers: <http://www.darkfish.com/checkers/index.html>

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Java: Write Once, Run Anywhere

- Consequence of Java's history:
platform-independence



Click on link to Applet

Mac user running Safari

Virtual machine translates byte code to
native Mac code and the Applet is run



Windows user running Internet Explorer



Web page stored on Unix server

Byte code is downloaded



Byte code
(part of web
page)

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Adding Java Code To A Webpage

- The code can be run through a web browser instead of manually invoked via the command line.
 - These Java programs are 'applets'
 - How to create a simple Java applet:
 - <http://docs.oracle.com/javase/tutorial/deployment/applet/getStarted.html>
 - How to get an applet to run when your web page is accessed
 - http://www.ehow.com/how_7306707_run-java-applet-html.html

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Java: Write Once, Run Anywhere

- Consequence of Java's history:
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Mac user running Safari



Web page stored on Unix server

Click on link to Applet

Byte code is downloaded



Windows user running Internet Explorer

Virtual machine translates byte code to native Windows code and the Applet is run



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After This Section You Should Now Know

- How Java was developed and the impact of its roots on the language
- Major players and events in the development of Java

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