Java History

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

Java: History
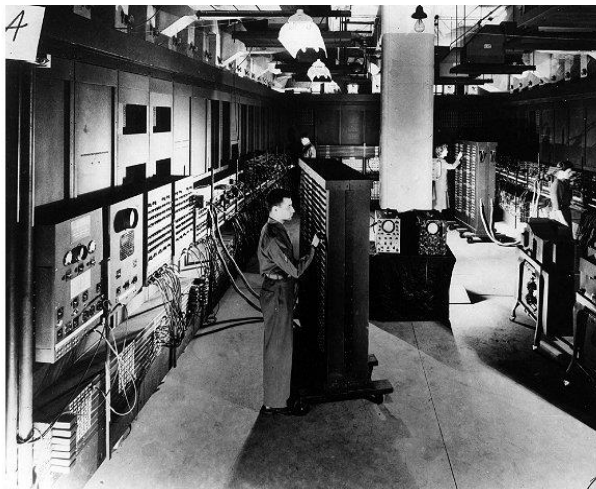
• Computers of the past

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

Java: History (3)

- It was believed that the logical next step for microprocessors was to have them run intelligent consumer electronics.
  - "Smart homes"
  - "Smart washer-dryers"
  - "Smart vacuums"

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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

James Tam

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!

Java: History (6)

- The concept of intelligent devices didn't catch on.
- Project Green and work on the Java language was nearly canceled.

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**

**Server containing a
web page**

**User clicks on a
link**

**Images and text get
downloaded**

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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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Why 'Javac' & 'Java': Consequence Of Java History

Java: Write Once, Run Anywhere

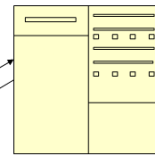- Consequence of Java's history (coming later): platform-independence

Mac user running Safari

Web page stored on Unix server

Click on link to Applet

Byte code is downloaded

The faculty home page of James Tam

Windows user running Internet Explorer

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

Byte code (part of web page)

James Tam

James Tam

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

References

• http://www.oracle.com/technetwork/java/javase/overview/javahistory-index-198355.html

After This Section You Should Now Know

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

James Tam