Java™

Back to the Future
Java 8 is here!

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Problem…

Georges Saab
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Follow

Hey @united - flight ua903 delayed 4 hrs out of SFO, anything you can do on connection FRA-AMS? Would hate to miss my keynote at #gotoams

California, USA

Solution!

http://hauteliving.com/2011/12/back-to-the-future-items-head-to-auction-including-delorean-dmc-12/230606/

What is Java? (circa 1995)

"A simple, object oriented, distributed, interpreted, robust, secure, architecture-neutral, portable, high performance, multithreaded, dynamic language"

– Dr. James Gosling

Some Benefits of Java

- Simple (relatively)
- Stable
- Fast
- Scalable
- Easy to read and maintain
- Choice of compatible implementations
- Great software ecosystem
- Future-proof
  - We optimize for new HW/OS

Version History

- JDK 1.0   Jan 1996
- JDK 1.1   Feb 1997
- JDK 1.2   Dec 1998
- JDK 1.3   May 2000
- JDK 1.4   Feb 2002
- JDK 5.0   Sep 2004
- JDK 6   Dec 2006
- …

ACQUISITION

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- JDK 5.0   Sep 2004
- JDK 6   Dec 2006
- JDK 7   Jul 2011
- JDK 8   Mar 18, 2014

Java 8

Getty Images
http://www.fifa.com/worldcup/teams/team=43960/photos/index.html#2376173

Recent Headline

"The Second Coming of Java: A Clinton Era Relic Returns to Rule Web"

– Wired, Sep 25, 2013

Roadmap Principles

- Major releases – Every 2 years

- Minor/Feature releases – 3 in between each major, roughly 6 month cadence

- Security and bug fix releases – Quarterly, dates announced 1 year in advance, synchronized between major release lines

Top 8 Reasons to Use JDK 8

- Project Lambda & Stream APIs
- New Date and Time APIs
- Compact Profiles
- Nashorn
- Java Flight Recorder/Java Mission Control
- No more permanent generation!
- Updated standards
- Developed in OpenJDK
- Also -- Java 7 EOPL is April 2015

Code Examples!

Top 8 Great Things About OpenJDK

- Transparency
- Collaboration with the best minds on Java
- Members from different companies and backgrounds
- Increasing y/y contributions and membership
- Continually improving infrastructure
- Open innovation
- AdoptOpenJDK
- Java SE RI is OpenJDK – increased compatibility

Java 9

- Jigsaw Modules
- Enterprise deployment
- Continued JVM improvement:
  - Increase sharing, increased isolation
  - Additional improvements in Serviceability
- Lots of other things – look in the Java Bug System!

- JEP 2.0 and JBS
- Mailing lists and blogs
- JVMLS papers and recordings

Java 9 and Beyond

- Some things which have been discussed in the OpenJDK community:
  - Enhanced Volatiles
  - FFI & Project Panama
  - Value types
  - Arrays 2.0

Things You Can Do to Help

- Try weekly JDK builds and give feedback!
    - 8u20, 8u40, 9!
- Move to Java 8 as soon as you can
- Join a Java User Group
- Check out OpenJDK (and AdoptOpenJDK)