

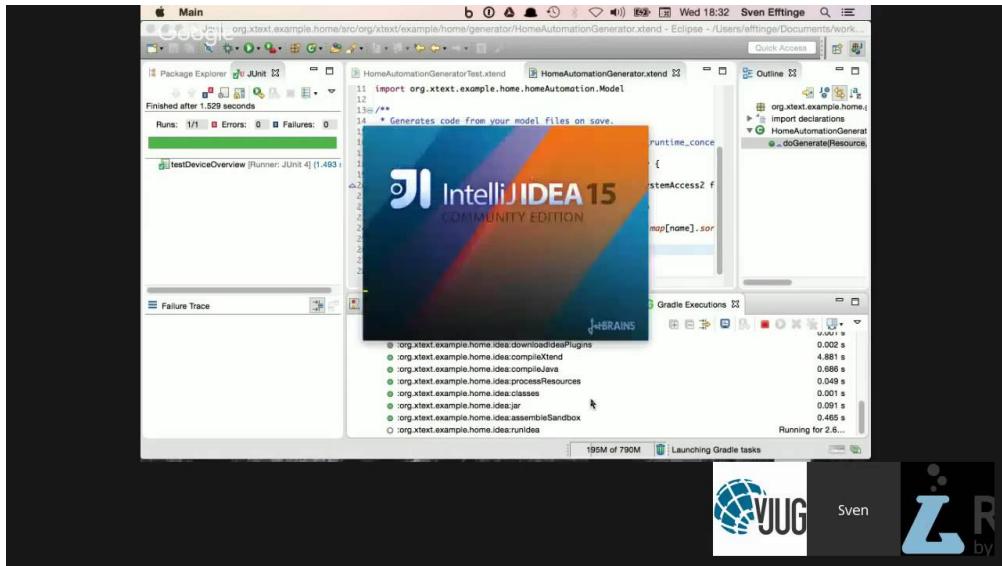
Table of Contents

- [Programming Language Development Made Easy](#)
- [Mutation testing with pitest](#)
- [Getting C/C++ performance out of Java](#)
- [Java 8 in Anger!](#)
- [Java Profiling from the Ground Up!](#)
- [Generics: Past, Present and Future](#)
- [Flavors of Java Concurrency](#)
- [Resilience is by design](#)
- [Java Concurrency Under the Hood](#)
- [Getting Started with Minecraft Modding](#)
- [Value in Relationships - How Graphs make databases fun again](#)
- [So why would I use a distributed database like Apache Cassandra?](#)
- [Live From Devoxx UK Hackergarten: From vJUG virtuality to Devoxx UK real](#)
- [Live From Devoxx UK: Apache TomEE from Dev to Ops](#)
- [State of the art data access with Spring Data](#)
- [Gradle: hot or not?](#)
- [Java byte code in practice](#)
- [Effective IDE Usage](#)
- [Building "Bootiful" Microservices with Spring Cloud](#)
- [Architecting Large Enterprise Java Projects](#)
- [JavaLand Session: How is Java/JVM built?](#)
- [JavaLand Session: What's coming in Java.Next?](#)
- [Building Modular Java Applications in the Cloud](#)
- [Java Memory Model Pragmatics](#)
- [The Live Reflection Madness](#)
- [Package your Java EE application using Docker and Kubernetes](#)
- [jOOQ: Get Back in Control of Your SQL](#)
- [Java and the Wave Glider, by James Gosling](#)
- [Scala for Java Developers](#)
- [Kotlin for Java Developers](#)
- [Ceylon for Java Developers](#)
- [Groovy for Java Developers](#)
- [Building the Internet of Things with Java](#)
- [Reactive Programming: Creating highly responsive applications](#)
- [Shaping Java's future & vJUG party!](#)
- [HTML5, AngularJS, Groovy, Java and MongoDB all together - what could go wrong?](#)
- [Opinionated JavaFX 8](#)
- [3 years of backend testing at Shazam \[the stuff we got wrong\]](#)
- [Pragmatic Functional Refactoring with Java 8](#)
- [Highly Strung: Understanding your Type System](#)
- [Testing and Refactoring Legacy Code](#)
- [vJUG panel: Review of 2164 Survey Responses on Java Tools and Technology](#)
- [Java Classloaders: The good, the bad and the WTF.](#)
- [vJUG Panel: What do the Oracle/Google shenanigans mean to the Java](#)

Developer?

- [Netty - The async event-driven network application framework](#)
- [Evolving code without breaking compatibility](#)
- [Building Bootiful Applications with Spring Boot](#)
- [Java 8 Parallel Streams Workshop](#)
- [Project Lambda: Functional Prog. Constructs and Simpler Concurrency in Java SE 8](#)
- [WebSocket Applications using Java EE 7](#)
- [Comparing JVM Web Frameworks](#)
- [55 New Features in Java SE 8](#)
- [How To Do Kick-Ass Software Development](#)
- [Getting started with Java EE 7](#)
- [Don't be that guy! Developer Security Awareness](#)
- [Drive-by Contributions](#)
- [Design is a Process, not a Document](#)

Programming Language Development Made Easy



Xtext let's you build fully featured programming languages as well as simple domain specific languages (DSL) easily. Based on a syntax description in a powerful grammar language, the framework not only gives you a generated parser and AST but supports the full stack of infrastructure that is needed. This includes compiler aspects, like linkers, type checkers as well as rich editor support for Eclipse, IntelliJ and web. Also a deep integration with the common build tools Maven, Gradle, and Ant comes out of the box.



<http://virtualjug.com/?p=1894>



Mutation testing with pitest

Applications - Chromium - PrimitiveFloatArraySubject.java - Chromium - Wed 9 Dec, 17:35

MUTATIONS

```
43 1. mutated return of Object value for com/google/common/truth/PrimitiveFloatArraySubject::underlyingType to { if (x != null) null else throw new RuntimeException() } - KILLED
48 1. mutated return of Object value for com/google/common/truth/PrimitiveFloatArraySubject::listRepresentation to { if (x != null) null else throw new RuntimeException() } - KILLED
72 1. negated conditional - KILLED
77 1. negated conditional - KILLED
78 1. removed call to com/google/common/truth/PrimitiveFloatArraySubject::failWithRawMessage - NO_COVERAGE
84 1. changed conditional boundary - KILLED
85 2. negated conditional - KILLED
86 3. negated conditional - KILLED
90 1. negated conditional - KILLED
91 1. removed call to com/google/common/truth/PrimitiveFloatArraySubject::fail - KILLED
94 1. removed call to com/google/common/truth/PrimitiveFloatArraySubject::failWithBadType - KILLED
116 1. negated conditional - KILLED
117 1. removed call to com/google/common/truth/PrimitiveFloatArraySubject::failWithRawMessage - SURVIVED
120 1. negated conditional - KILLED
124 1. changed conditional boundary - KILLED
125 2. negated conditional - KILLED
126 3. negated conditional - KILLED
129 1. negated conditional - KILLED
130 1. removed call to com/google/common/truth/PrimitiveFloatArraySubject::failWithRawMessage - KILLED
141 1. mutated return of Object value for com/google/common/truth/PrimitiveFloatArraySubject::asList to { if (x != null) null
144 1. else throw new RuntimeException() } - NO_COVERAGE
```

Active mutators

VJUG Z R by Henry

Sometimes it takes a little while for a good idea to catch on.
A student paper written in 1971 is just now starting to
influence how we approach unit testing 40 years later.



<http://virtualjug.com/?p=1892>



Getting C/C++ performance out of Java

Google HOW DOES IT PERFORM? C24

Compare classic Java binding to binary...

	Classic Java version	Binary Java version	Improvement
Bytes used	328	39	840%
Serialization size	668	85	786%
Custom Serialization	668	40	1,670%
Time to Serialize/ Deserialize	41.1 μ s	4.17 μ s	10x
Batched Serialize/ Deserialize	12.3 μ s	44nS	280x

33 VJUG by John

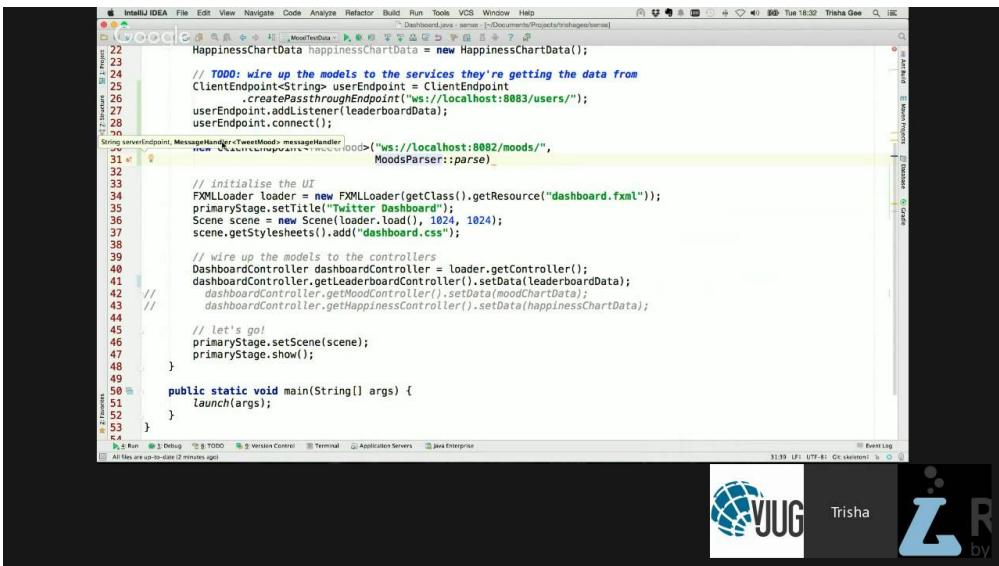
Today everything is connected, from the wearables to internet banking, every business is global and technology revolves around messaging. Data volumes have gone through the roof, “Big Data” is the buzzword of the era and we’ve been forced into distributed architectures and in-memory databases to handle the demand. We are now being held back by Java, its inefficient memory handling, and atrocious serialisation. By re-applying some of the lessons we learnt in the days of C/C++ we can significantly speed it up, and we’re not talking 50%, but 50 times.



<http://virtualjug.com/?p=1878>



Java 8 in Anger!



The screenshot shows an IntelliJ IDEA interface with Java code for a Twitter Dashboard application. The code uses Java 8 features like streams and lambdas. It includes imports for `HappinessChartData`, `ClientEndpoint`, `FXMLLoader`, `MessageHandler`, and `WebSocketSession`. The code initializes a FXML loader, sets up message handlers for WebSocket connections, and configures a primary stage with a scene and stylesheets. A main method launches the application.

```
22 // 23 // TODO: wire up the models to the services they're getting the data from
24 ClientEndpoint<String> userEndpoint = ClientEndpoint
25     .createPassthroughEndpoint("ws://localhost:8083/users/");
26     userEndpoint.addListener(leaderboardData);
27     userEndpoint.connect();
28
29 String serverEndpoint = "ws://localhost:8082/moods/";
30
31 @Override
32     public void onMessage(Message<String> message) {
33         messageHandler.readMessage(message.getPayload());
34     }
35
36     // initialize the UI
37 FXMLLoader loader = new FXMLLoader(getClass().getResource("dashboard.fxml"));
38 primaryStage.setTitle("Twitter Dashboard");
39 Scene scene = new Scene(loader.load(), 1024, 1024);
40 scene.getStylesheets().add("dashboard.css");
41
42     // wire up the models to the controllers
43 DashboardController dashboardController = loader.getController();
44 dashboardController.getLeaderboardController().setData(leaderboardData);
45 dashboardController.getMoodController().setData(moodChartData);
46 dashboardController.getHappinessController().setData(happinessChartData);
47
48     // let's go!
49 primaryStage.setScene(scene);
50 primaryStage.show();
51
52
53 }
54
55 public static void main(String[] args) {
56     launch(args);
57 }
```

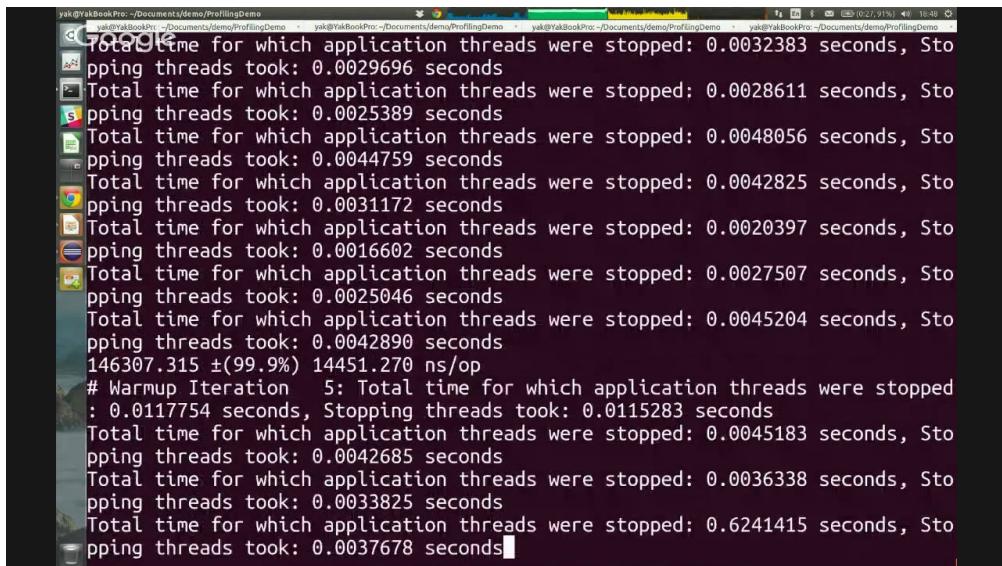
Java 9 is just around the corner, but many of us developers have yet to use Java 8 features in an application. This presentation moves beyond slide-sized examples of streams and lambdas, and shows how to build a fully working end-to-end application using minimal external dependencies and the latest version of Java.



<http://virtualjug.com/?p=1857>



Java Profiling from the Ground Up!



```
yak@YakBook-Pro: ~/Documents/demo/ProfilingDemo$ java -jar target/JavaProfilingDemo.jar
Total time for which application threads were stopped: 0.0032383 seconds, Stopping threads took: 0.0029696 seconds
Total time for which application threads were stopped: 0.0028611 seconds, Stopping threads took: 0.0025389 seconds
Total time for which application threads were stopped: 0.0048056 seconds, Stopping threads took: 0.0044759 seconds
Total time for which application threads were stopped: 0.0042825 seconds, Stopping threads took: 0.0031172 seconds
Total time for which application threads were stopped: 0.0020397 seconds, Stopping threads took: 0.0016602 seconds
Total time for which application threads were stopped: 0.0027507 seconds, Stopping threads took: 0.0025046 seconds
Total time for which application threads were stopped: 0.0045204 seconds, Stopping threads took: 0.0042890 seconds
146307.315 ±(99.9%) 14451.270 ns/op
# Warmup Iteration 5: Total time for which application threads were stopped : 0.0117754 seconds, Stopping threads took: 0.0115283 seconds
Total time for which application threads were stopped: 0.0045183 seconds, Stopping threads took: 0.0042685 seconds
Total time for which application threads were stopped: 0.0036338 seconds, Stopping threads took: 0.0033825 seconds
Total time for which application threads were stopped: 0.6241415 seconds, Stopping threads took: 0.0037678 seconds
```

We will take a deep dive into the guts of Honest-Profiler, an unbiased sampling CPU profiler for the JVM, and into the JVM internals which enable it to work.



<http://virtualjug.com/?p=1846>



Generics: Past, Present and Future



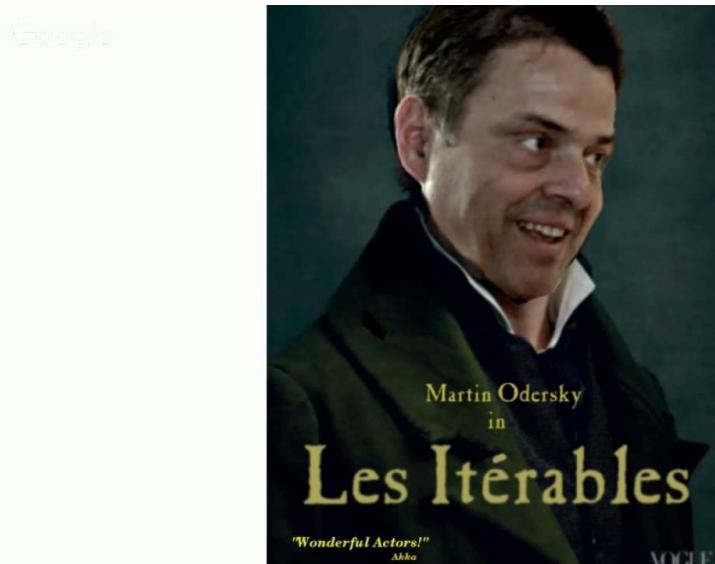
Generics are one of the most complex features of Java. They are often poorly understood and lead to confusing errors. Unfortunately, it won't get easier. Java 10, release planned for 2018, extends Generics. It's now time to understand generics or risk being left behind.



<http://virtualjug.com/?p=1844>



Flavors of Java Concurrency



Writing concurrent code that is also correct is unbelievably hard. Naturally, humanity has developed a number of approaches to handle concurrency in the code, starting from basic threads that follow the hardware way to do concurrency to higher level primitives like fibers and work-stealing solutions. But which approach is the best for you?



<http://virtualjug.com/?p=1827>



Resilience is by design



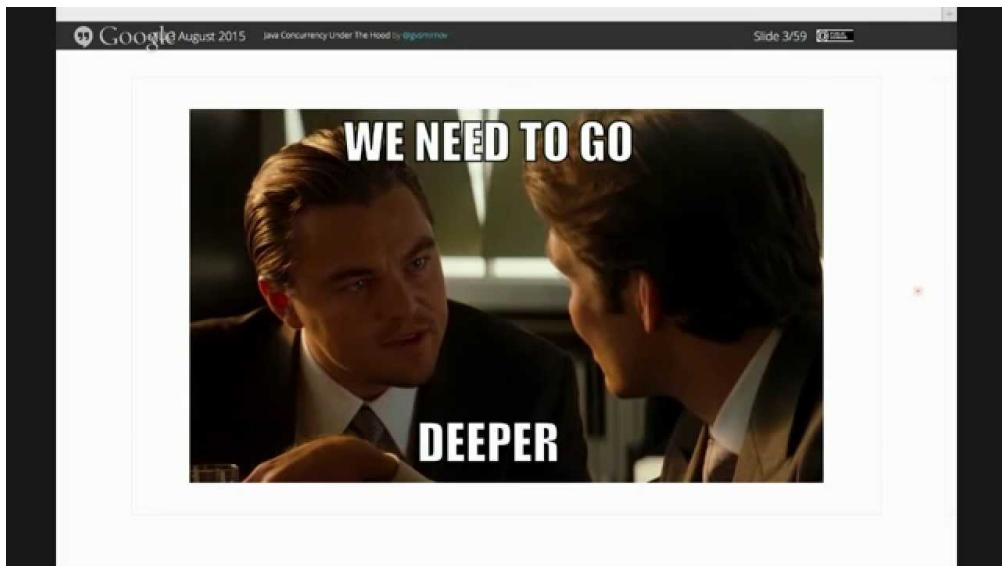
Resilience; most developers understand what the word means, at least superficially, but way too many lack a deeper understanding of what it really means in the context of the system that they are working on now. I find it really sad to see, since understanding and managing failure is more important today than ever. Outages are incredibly costly—for many definitions of cost—and can sometimes take down whole businesses. In this talk we will explore the essence of resilience. What does it really mean? What is its mechanics and characterizing traits? How do other sciences and industries manage it? We will see that everything hints at the same conclusion; there is no “happy path”, failure is an option and resilience is by design. In this talk we will explore how.



<http://virtualjug.com/?p=1807>



Java Concurrency Under the Hood



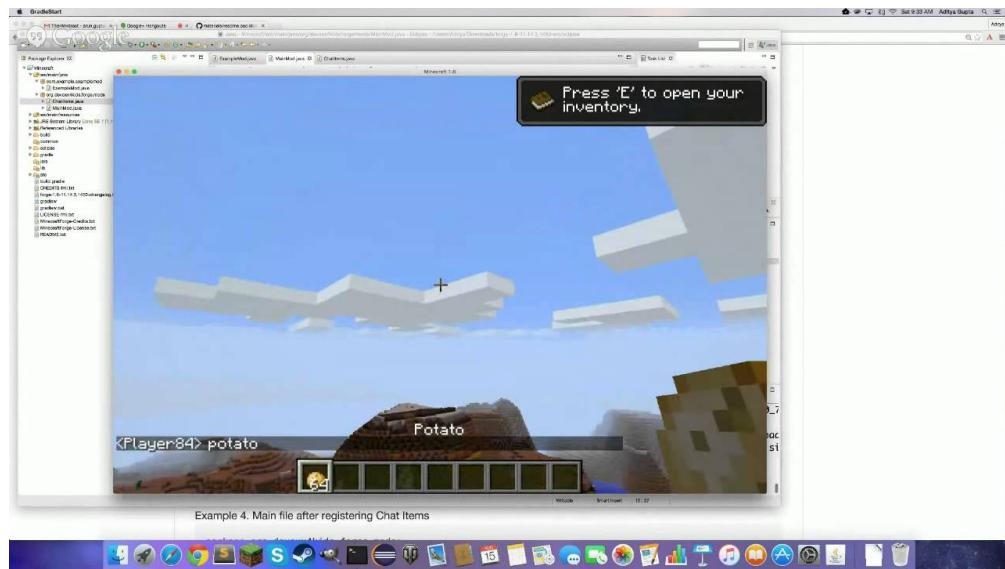
In this age when parallelism matters, being able to write proper concurrent code is paramount. While Java hides lots of implementation details by its 'Write Once, Run Anywhere' motto, all abstractions will eventually leak. When they do, you will have to go deeper and see how that thing actually works.



<http://virtualjug.com/?p=1799>



Getting Started with Minecraft Modding



In this session, we'll show parents and kids how to get started building Minecraft mods with Minecraft Forge. We'll show you how to setup your computer with little fuss, as well as walk you through the process of creating your first mod. You'll also learn essential Java programming skills. If you're a kid searching for new ways to have fun with the game, or a parent looking to nurture your kids' creativity through code, you won't want to miss this exciting, hands-on tutorial.



<http://virtualjug.com/?p=1794>



Value in Relationships - How Graphs make databases fun again



Looking at the world around us – society, social, science, economy and tech we can't see any isolated pieces of information. Instead everything is densely connected and a lot of the valuable information lives in the relationships between your entities. In the past and present databases always had a hard time to manage highly connected and semi-structured information in an efficient manner.



<http://virtualjug.com/?p=1745>



So why would I use a distributed database like Apache Cassandra?



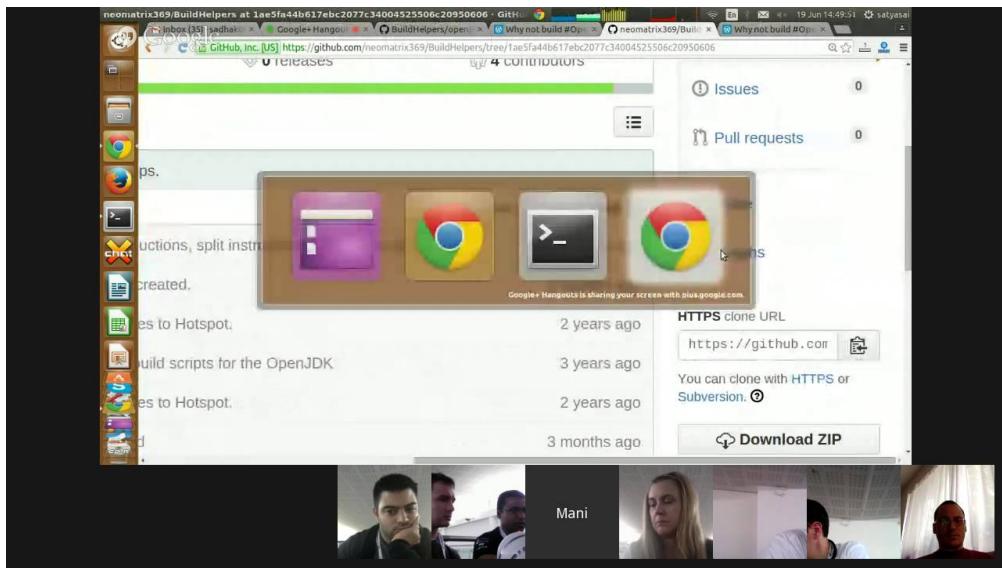
A new “database” seems to appear every other week. Most of them are “NoSQL” so they must be cool. All these new tools make it really hard for developers to cut through the fluff and know which type of data store to use and why.



<http://virtualjug.com/?p=1716>



Live From Devoxx UK Hackergarten: From vJUG virtuality to Devoxx UK real



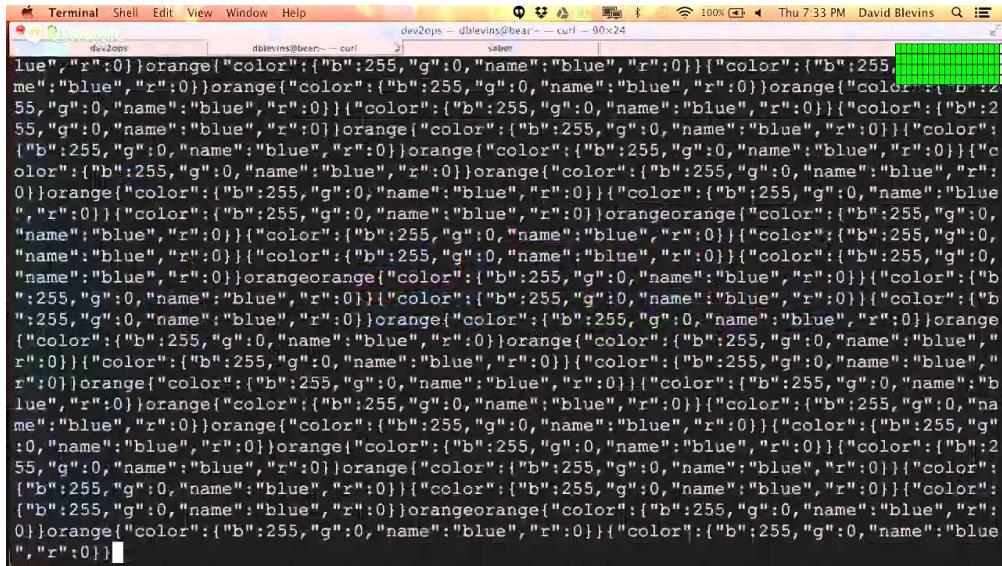
One dev: Did you know what happened at a recent Java conference few months ago ?



<http://virtualjug.com/?p=1714>



Live From Devoxx UK: Apache TomEE from Dev to Ops

A screenshot of a terminal window titled "Terminal". The window shows the command "curl -v http://localhost:8080/tomee/test.jsp" being run. The output of the curl command is displayed in the terminal, showing a large grid of colored squares (blue and orange) representing a heatmap or visualization of some data. The terminal also displays system status information at the top right, including the date and time (Thu 7:33 PM), user (David Blevins), and battery level (100%).

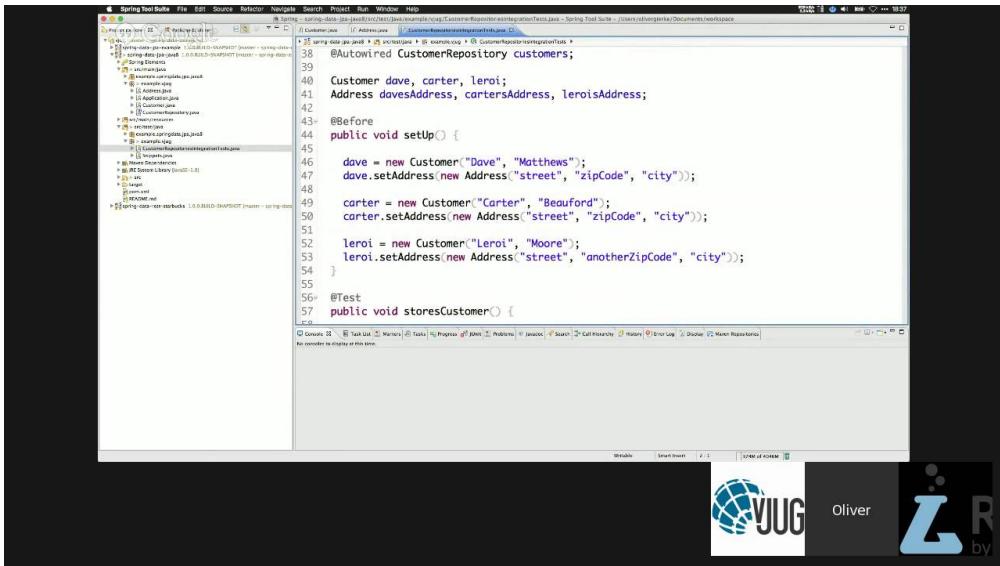
Apache TomEE is the Java EE distribution of Apache Tomcat. This live vJUG session goes beyond the basics and explores some fun features both TomEE-specific and JavaEE-portable for supercharging your application development, runtime and maintenance. Have a huge pile of DAOs? Use TomEE's abstract bean concept. Need to configure your application for many different environments? CDI and portable-extensions to the rescue. Want to create secured microservice distributions without any fuss? Nothing beats the TomEE Maven Plugin. Looking for a way to get detailed stats from your code? Hello annotation-driven monitoring support. Ever wish you could make your own management API? Check out the portable SSH Connector. The perfect session for any TomEE or Java EE enthusiast looking for cool toys for both developer and operations bliss.



<http://virtualjug.com/?p=1711>



State of the art data access with Spring Data



Even with the invention of JPA, implementing data-access layers in Java has been a tedious job for developers, often resulting in a lot of boilerplate code. Spring Data is an umbrella project that provides a convenient and consistent interface-based programming model to implement repositories. It can be used on top of JPA as well as NoSQL stores like MongoDB and Neo4j.



<http://virtualjug.com/?p=1709>



Gradle: hot or not?



Maven has been the preferred build tool of many Java based projects for years however times are a-changing, there's a new build tool in town and it promises to speed up build times, deliver build consistency, easier CI setup, extensibility and more. This tool is Gradle. Prominent open source projects have switched to Gradle already; organizations around the world are evaluating it too or made the switch already. So what makes Gradle tick? Join us to figure out the details! After all, it's not a "should I change to Gradle" question, rather "_when_ should I change to Gradle".



<http://virtualjug.com/?p=1704>



Java byte code in practice

The screenshot shows a presentation slide with a dark background. On the left, there is a large black rectangular area. To its right is a light blue section containing four entries, each with a small icon and text:

- INVOKESPECIAL** *pkg/Bar foo ()V*
Invokes a super class's version of an inherited method.
Invokes a "constructor method".
Invokes a private method.
Invokes an interface default method (Java 8).
- INVOKESTATIC** *pkg/Bar foo ()V*
Invokes a static method.
- INVOKEINTERFACE** *pkg/Bar foo ()V*
Invokes an interface method.
(Similar to INVOKEVIRTUAL but without virtual method table index optimization.)
- INVOKEDYNAMIC** *foo ()V bootstrap*
Queries the given *bootstrap method* for locating a method implementation at runtime.
(MethodHandle: Combines a specific method and an INVOKE* instruction.)

On the right side of the slide, there is a white logo for "VJUG" with a globe icon, followed by the name "Rafael" and a small portrait photo of a man.

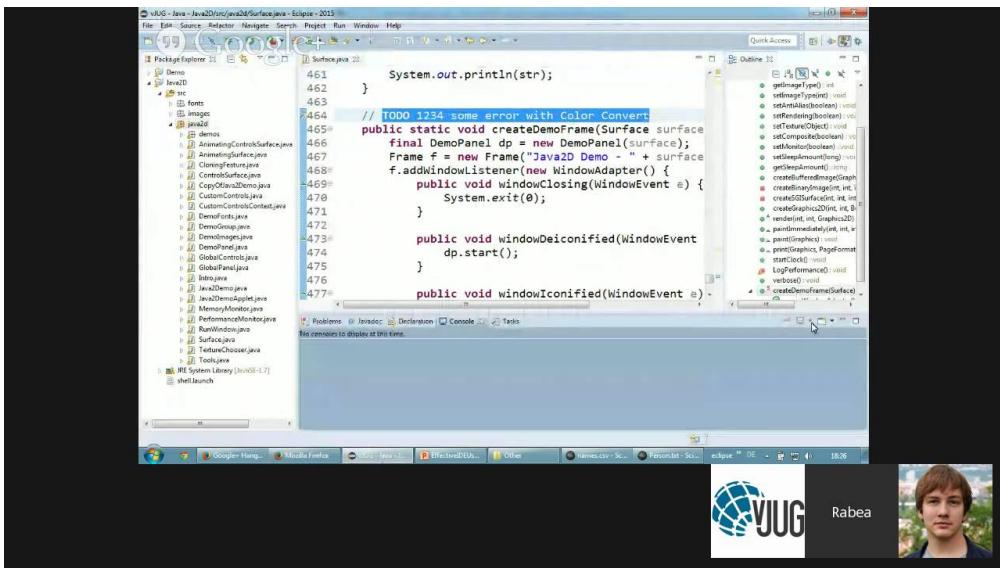
At first glance, Java byte code can appear to be some low level magic that is both hard to understand and effectively irrelevant to application developers. However, neither is true. With only little practice, Java byte code becomes easy to read and can give true insights into the functioning of a Java program. In this talk, we will cast light on compiled Java code and its interplay with the Java virtual machine. In the process, we will look into the evolution of byte code over the recent major releases with features such as dynamic method invocation which is the basis to Java 8 lambda expressions. Finally, we will learn about tools for the run time generation of Java classes and how these tools are used to build modern frameworks and libraries. Among those tools, I present Byte Buddy, an open source tool of my own efforts and an attempt to considerably simplify run time code generation in Java.
(<http://bytebuddy.net>)



<http://virtualjug.com/?p=1673>



Effective IDE Usage



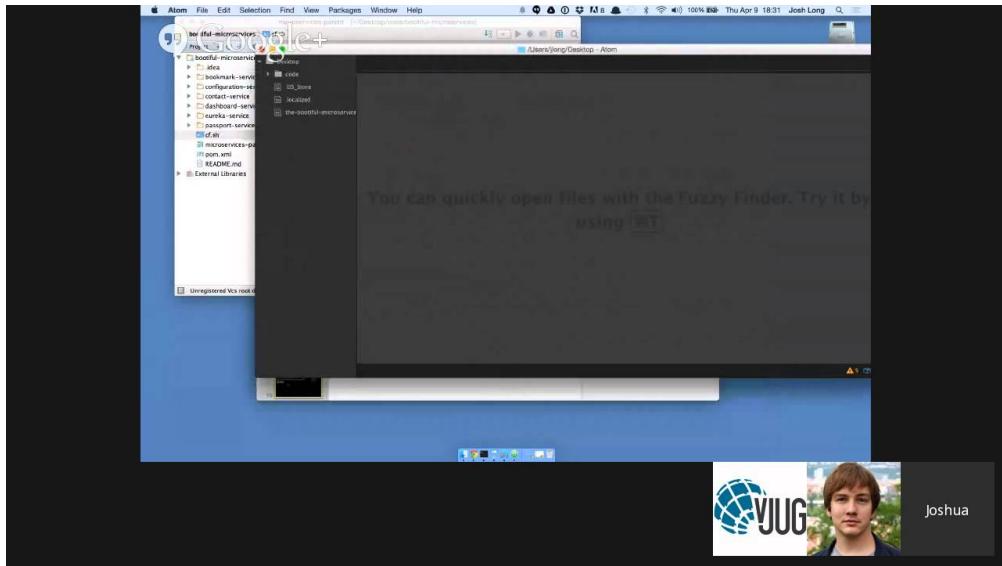
You don't want your IDE to propose `java.awt.List` as import when you need `java.util.List`? This talk will show you how to get rid of the proposal and how to use your IDE effectively to concentrate on your work.



<http://virtualjug.com/?p=1658>



Building “Bootiful” Microservices with Spring Cloud



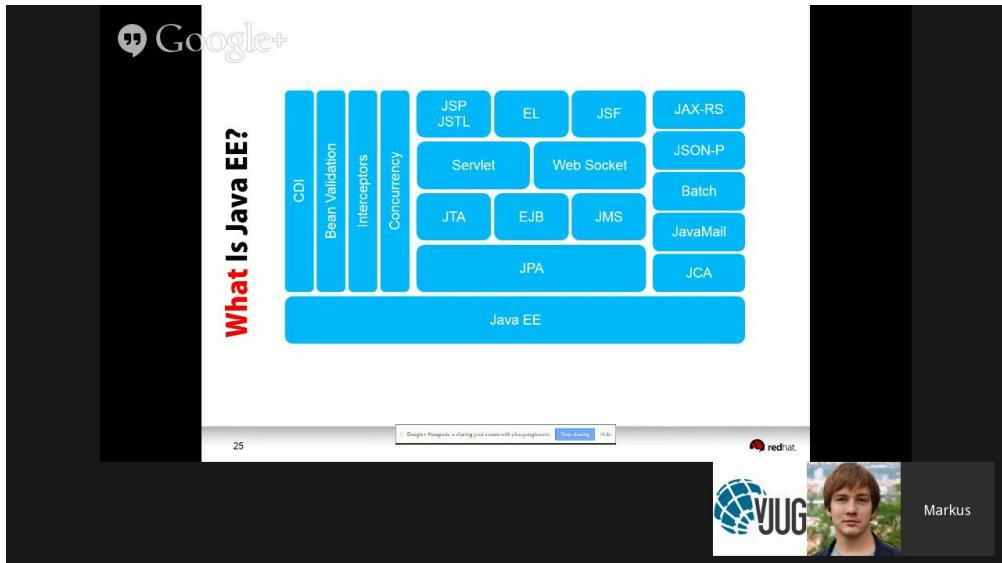
We get it already! Microservices help you build smaller, singly-focused services, quicker. They scale out. They're more agile because individual teams can deliver them at their own pace. They work well in the cloud because they're smaller, and benefit from elastic, horizontal scaling. But what about the complexity? There's a cost associated with adding services and coordinating the interactions between them. In this talk, we'll look at Spring Cloud, which builds atop Spring Boot and the Netflix OSS stack, and see how it lets you easily integrate service-discovery, security, reliability patterns like the circuit breaker, and centralized and journaled property configuration (and more) to build resilient microservices that scale.



<http://virtualjug.com/?p=1552>



Architecting Large Enterprise Java Projects



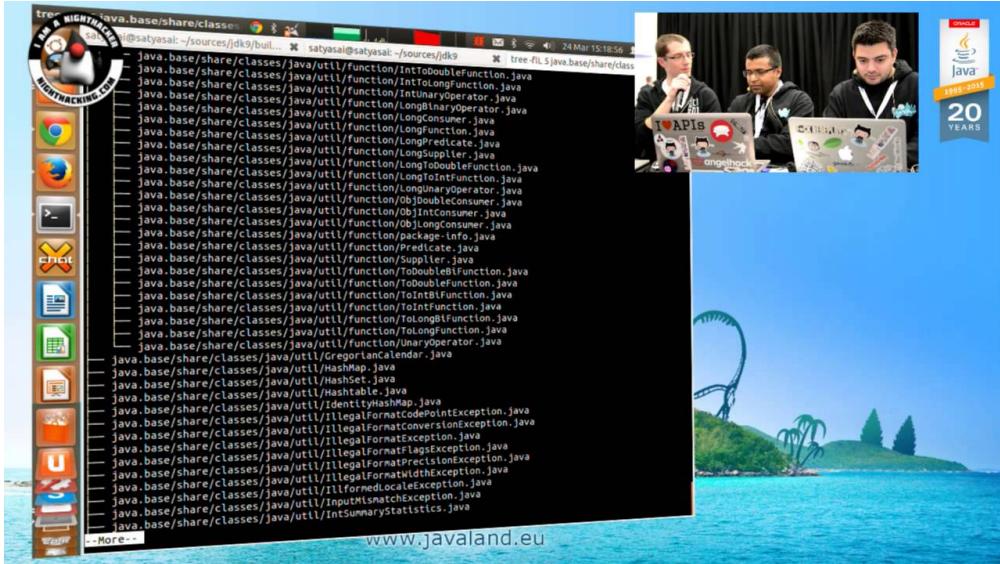
In the past I've been building component oriented applications with what I had at hand. Mostly driven by the features available in the Java EE standard to be "portable" and easy to use. Looking back this has been a perfect fit for many customers and applications. With an increasing demand for highly integrated applications which use already available services and processes from all over the place (departmental, central or even cloud services) this approach starts to feel more and more outdated. And this feel does not come from a technology perspective but from all the requirements around it. Having this in mind this post is the starting point of a series of how-to's and short tutorials which aim to showcase some more diverse ways of building (Java EE) applications that fit better into today's requirements and landscapes.



<http://virtualjug.com/?p=1546>



JavaLand Session: How is Java/JVM built?



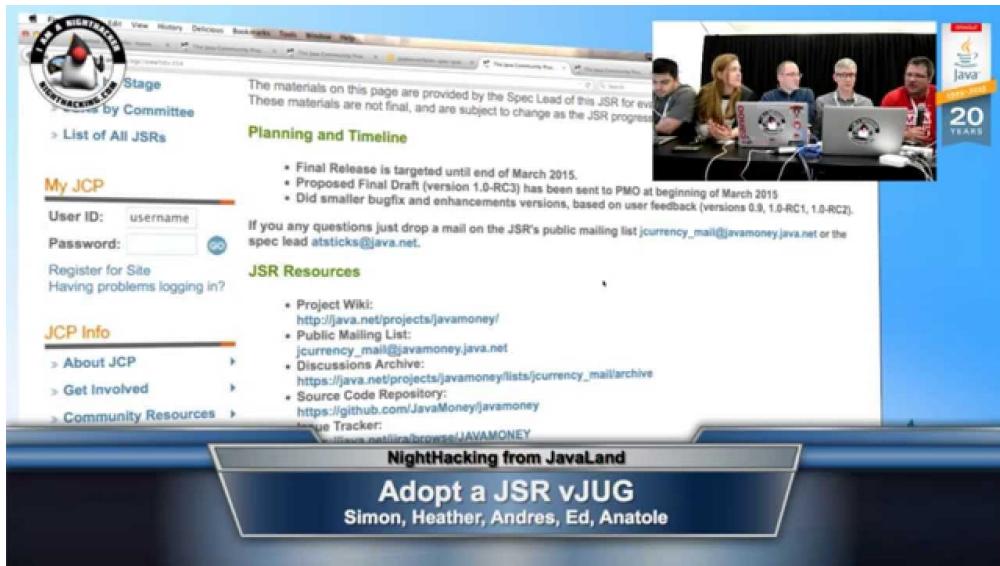
Mr Webber developer and **Ms Janet Java developer** are both developers who are interested in broadening their know-how of the Java platform. **Mr Webber developer** shares with **Ms Janet Java developer** conservations about Javaland, vJUG, Nighthacking and Adopt OpenJDK – a preview of their conversation.



<http://virtualjug.com/?p=1533>



JavaLand Session: What's coming in Java.Next?



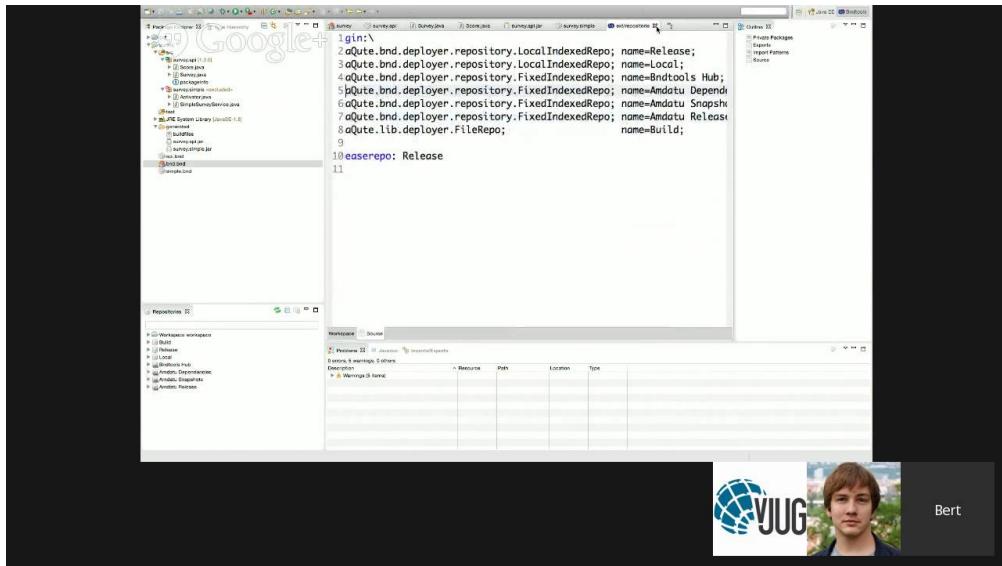
This session will take place live from the Javaland conference in Germany on the Nighthacking stage! Learn from **Heather VanCura** how you can take part in Java technology by Adopting a JSR. This session give a brief overview of the Adopt-a-JSR program and how to participate through the Virtual JUG. We will meet and discuss with three current JCP Spec Leads to find out how their JSRs could benefit from vJUG Adopt-a-JSR participation.



<http://virtualjug.com/?p=1532>



Building Modular Java Applications in the Cloud



```
1<git>
2    <bundle>
3        <bundle.id>1.0.0
4        <bundle.name>com.bnd.sample
5        <bundle.version>1.0.0
6        <bundle.description>A simple OSGi sample application
7        <bundle.exported-services>
8            <service>org.osgi.service.packageadmin.PackageAdmin</service>
9        <bundle.private.pkg>
10       <bundle.private.jar>
11   </bundle>
```



Bert

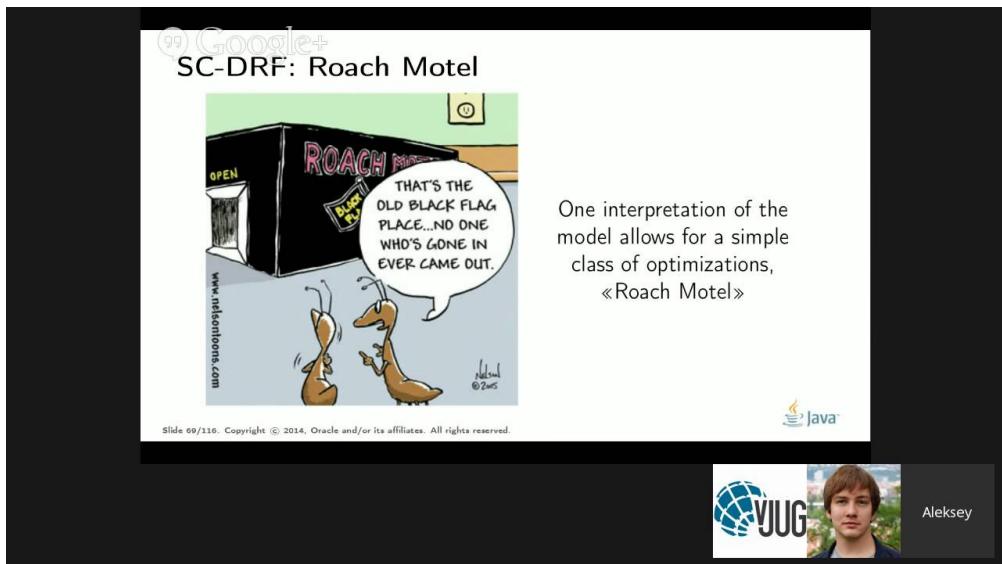
Modularity is an architectural theme that you'll hear about more and more. Being able to deal with change in a codebase is not something trivial and requires some serious thought. In this talk I will show you that it is actually pretty easy to achieve a modular architecture using OSGi, and the right set of tools. Of course everything will be demonstrated using live coding!



<http://virtualjug.com/?p=1436>



Java Memory Model Pragmatics



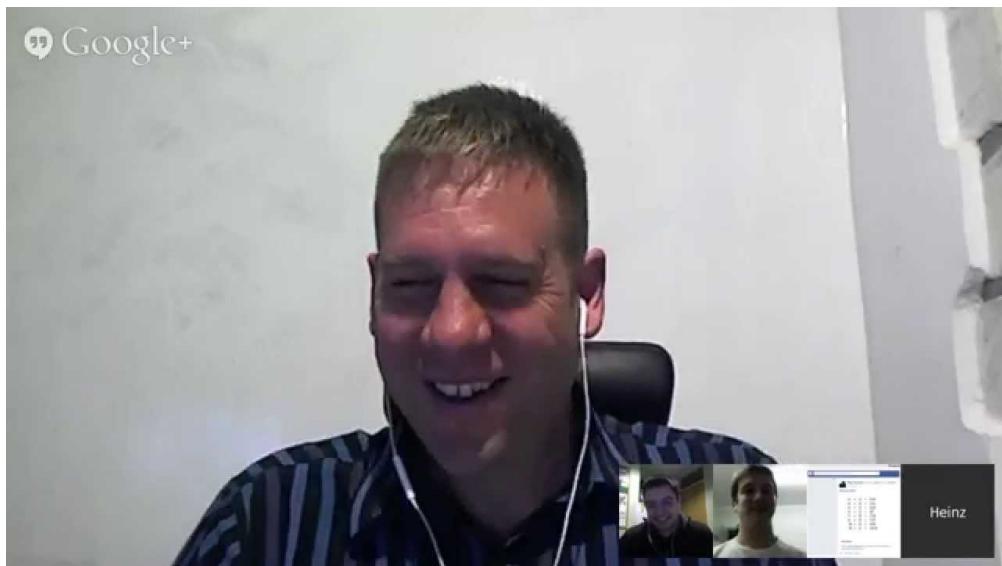
The Java Memory Model is the most complicated part of Java spec that must be understood by at least library and runtime developers. Unfortunately, it is worded in such a way that it takes a few senior guys to decipher it for each other.



<http://virtualjug.com/?p=1388>



The Live Reflection Madness



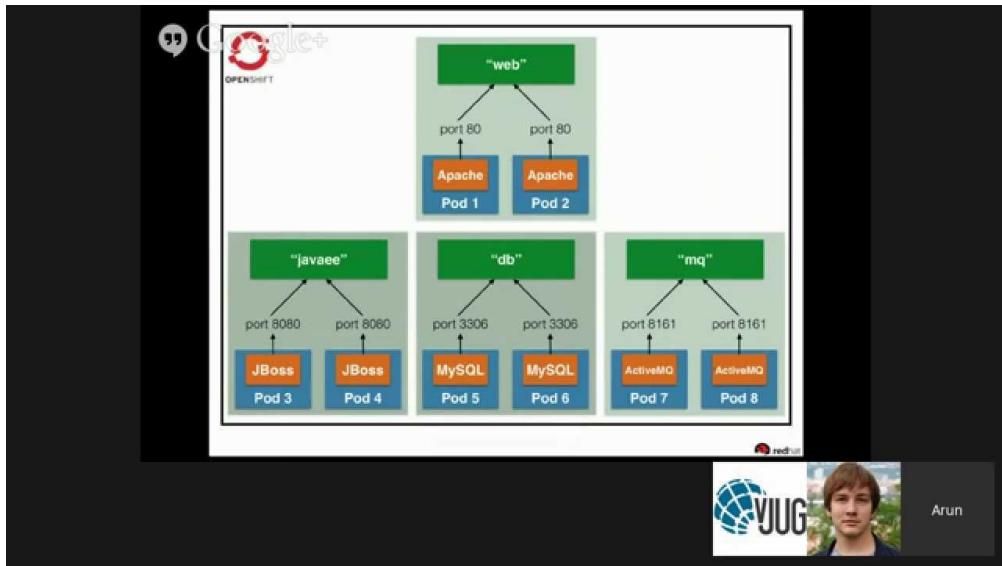
Heinz likes to compare reflection to opium. Not the perfume. The drug. In this live coding session, he will start by showing some of the powerful features available to us in Java.



<http://virtualjug.com/?p=1347>



Package your Java EE application using Docker and Kubernetes



Docker simplifies software delivery by making it easy to build and share images that contain your application's operating system. It packages your application and infrastructure together, managed as one component.



<http://virtualjug.com/?p=1343>



jOOQ: Get Back in Control of Your SQL



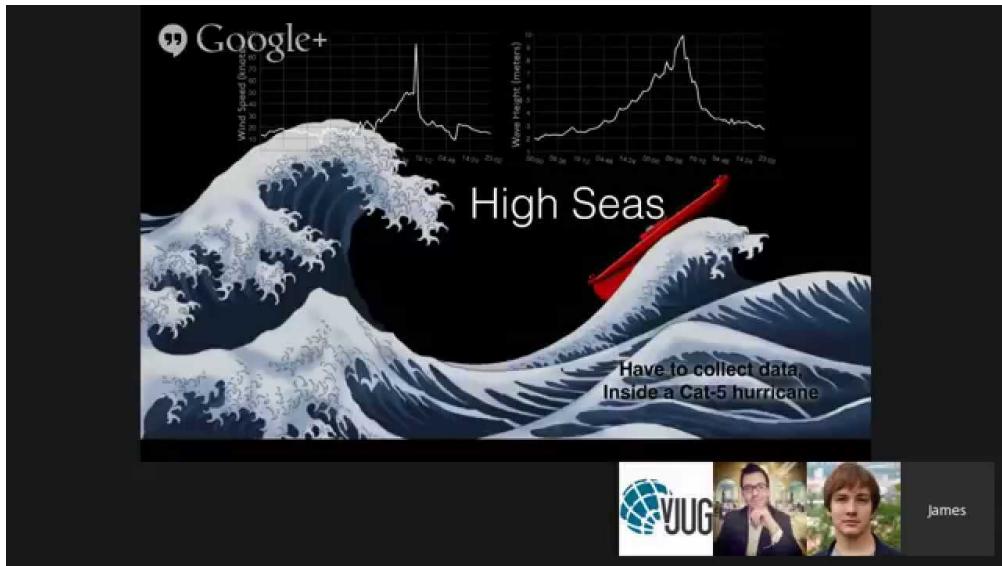
SQL is a powerful and highly expressive language for queries against relational databases. SQL is established, standardised and hardly challenged by alternative querying languages.



<http://virtualjug.com/?p=1337>



Java and the Wave Glider, by James Gosling



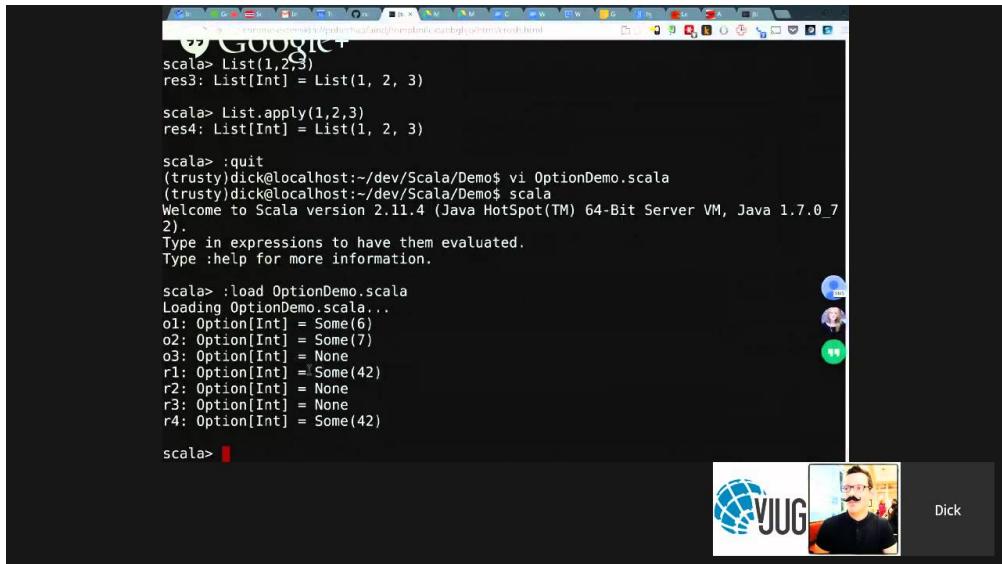
[IRC logs be be found here.](#)



<http://virtualjug.com/?p=1325>



Scala for Java Developers



A screenshot of a terminal window titled "Google". The window displays Scala code being run in a REPL environment. The code includes creating lists, applying functions to lists, and loading a file named "OptionDemo.scala". The output shows the results of these operations, including the use of Option type. The terminal window has a dark background and a light-colored text area. In the bottom right corner, there is a small interface with a profile picture, a green button, and the name "Dick".

```
scala> List(1,2,3)
res3: List[Int] = List(1, 2, 3)

scala> List.apply(1,2,3)
res4: List[Int] = List(1, 2, 3)

scala> :quit
(trusty)dick@localhost:~/dev/Scala/Demo$ vi OptionDemo.scala
(trusty)dick@localhost:~/dev/Scala/Demo$ scala
Welcome to Scala version 2.11.4 (Java HotSpot(TM) 64-Bit Server VM, Java 1.7.0_7
2).
Type in expressions to have them evaluated.
Type :help for more information.

scala> .load OptionDemo.scala
Loading OptionDemo.scala...
o1: Option[Int] = Some(6)
o2: Option[Int] = Some(7)
o3: Option[Int] = None
r1: Option[Int] = Some(42)
r2: Option[Int] = None
r3: Option[Int] = None
r4: Option[Int] = Some(42)

scala> 
```

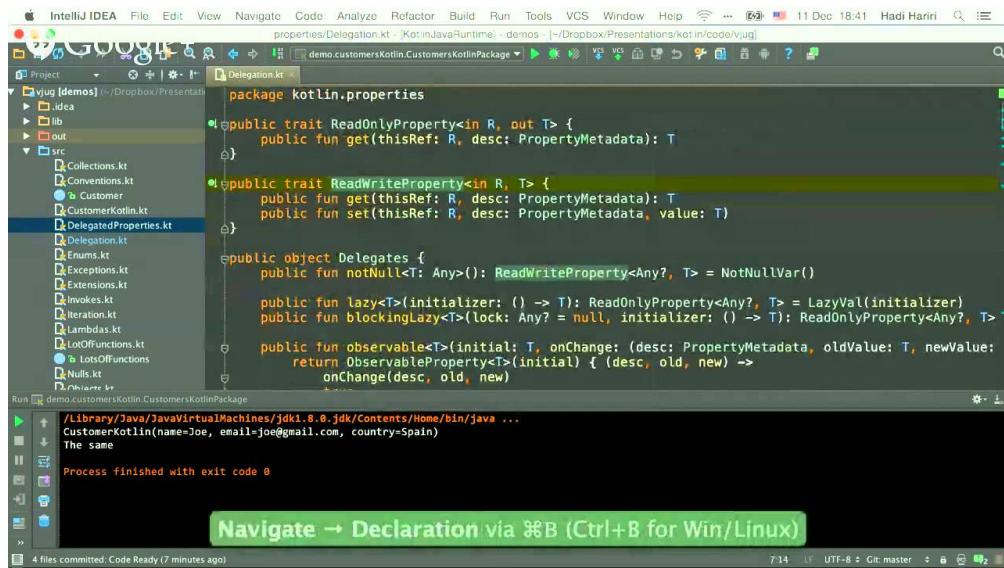
- What are the major advantages/features Scala provides
- Why should someone move from Java to Scala
- What is the future direction of Scala



<http://virtualjug.com/?p=1302>



Kotlin for Java Developers



The screenshot shows the IntelliJ IDEA interface with a Kotlin project open. The code editor displays a file named `Delegation.kt` containing Kotlin code. A tooltip at the bottom center of the screen says "Navigate → Declaration via ⌘B (Ctrl+B for Win/Linux)". The status bar at the bottom right shows "4 files committed. Code Ready (7 minutes ago)".

```
package kotlin.properties

public trait ReadOnlyProperty<in R, out T> {
    public fun get(thisRef: R, desc: PropertyMetadata): T
}

public trait ReadWriteProperty<in R, T> {
    public fun get(thisRef: R, desc: PropertyMetadata): T
    public fun set(thisRef: R, desc: PropertyMetadata, value: T)
}

public object Delegates {
    public fun notNull<T: Any>(): ReadWriteProperty<Any?, T> = NotNullVar()

    public fun lazy<T>(initializer: () -> T): ReadOnlyProperty<Any?, T> = LazyVal(initializer)
    public fun blockingLazy<T>(lock: Any? = null, initializer: () -> T): ReadOnlyProperty<Any?, T> = BlockingLazy(initializer)

    public fun observable<T>(initial: T, onChange: (desc: PropertyMetadata, oldValue: T, newValue: T) ->
        onChange(desc, old, new))
}
```

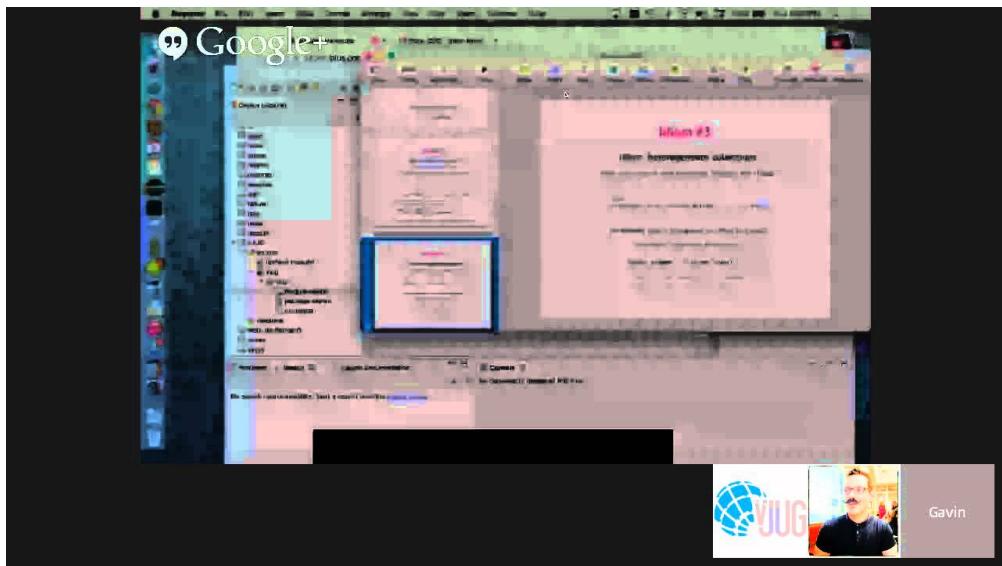
- What are the major advantages/features Kotlin provides
- Why should someone move from Java to Kotlin
- What is the future direction of Kotlin



<http://virtualjug.com/?p=1297>



Ceylon for Java Developers



- What are the major advantages/features Ceylon provides
- Why should someone move from Java to Ceylon
- What is the future direction of Ceylon



<http://virtualjug.com/?p=1294>



Groovy for Java Developers

The slide title is "Closures — Closures vs Java 8 lambdas?". It contains two code snippets:

```
IntStream.range(1, 100).forEach(s -> System.out.println(s));  
Files.lines(Paths.get('README.adoc'))  
    .map(it -> it.toUpperCase())  
    .forEach(it -> System.out.println(it))
```

```
IntStream.range(1, 100).forEach { println it }  
Files.lines(Paths.get('README.adoc'))  
    .map { it.toUpperCase() }  
    .forEach { println it }
```

A red callout bubble points to the first snippet with the text: "Use Groovy closures wherever you pass lambdas in Java 8".

At the bottom, there is a footer with the handle "@glaforge", the number 44, the VJUG logo, a photo of the speaker, and the name "Guillaume".

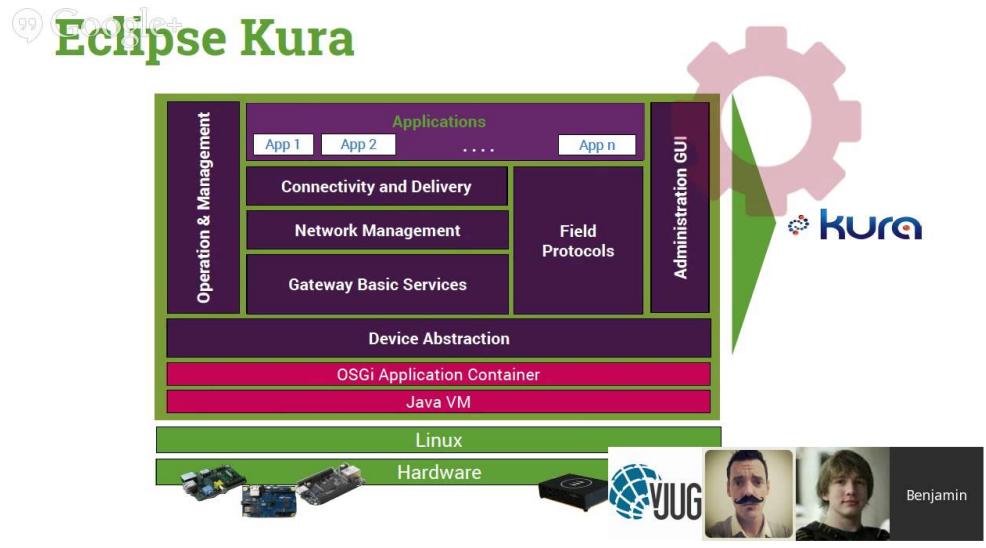
Speaker: Guillaume Laforge



<http://virtualjug.com/?p=1288>



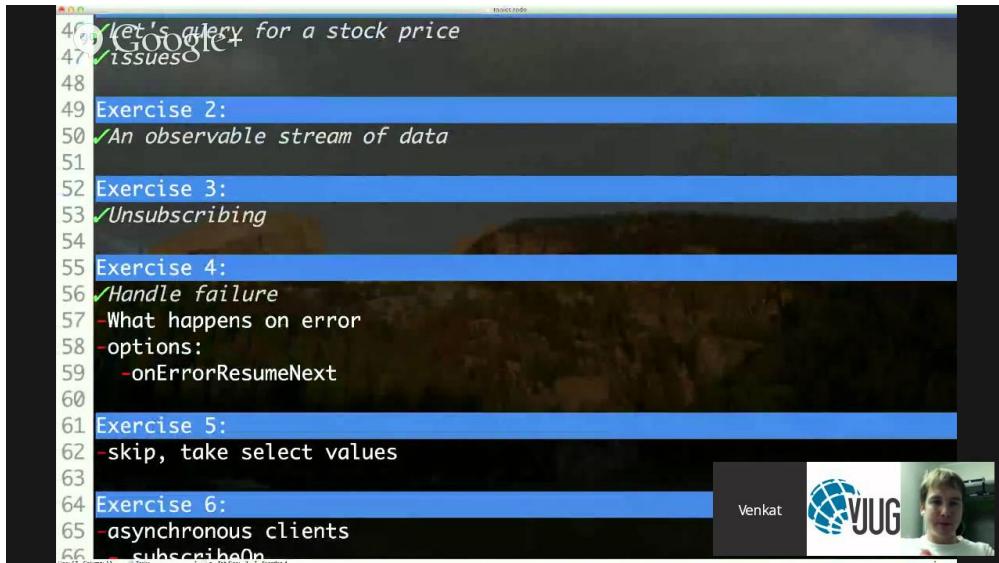
Building the Internet of Things with Java



<http://virtualjug.com/?p=1195>



Reactive Programming: Creating highly responsive applications



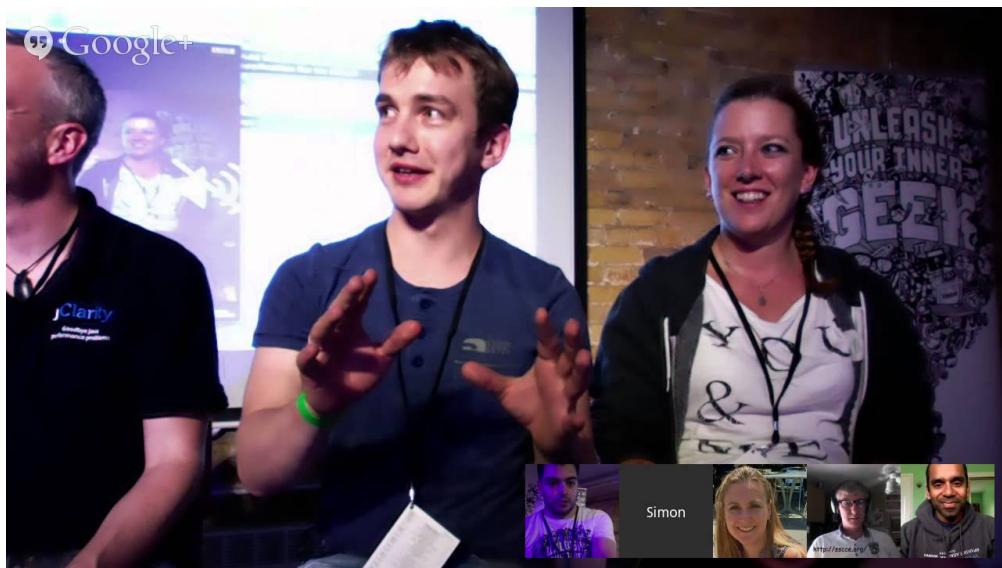
Reactive Programming is gaining a lot of attention recently, but what is it? It is a culmination of a lot of good ideas developed over the years, but brought together by the forces of recent developments



<http://virtualjug.com/?p=1193>



Shaping Java's future & vJUG party!



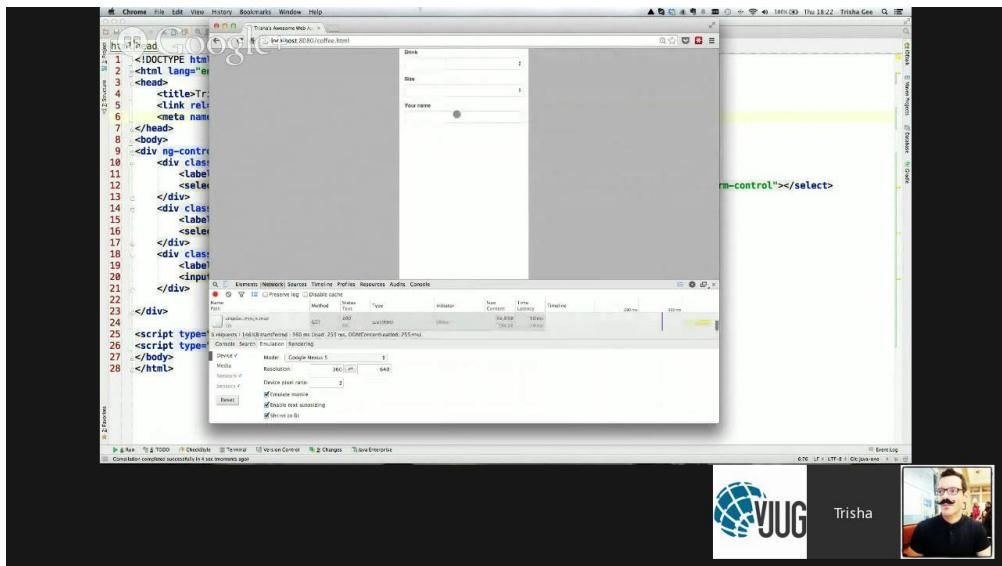
Shaping Java's future & vJUG party!



<http://virtualjug.com/?p=1191>



HTML5, AngularJS, Groovy, Java and MongoDB all together - what could go wrong?



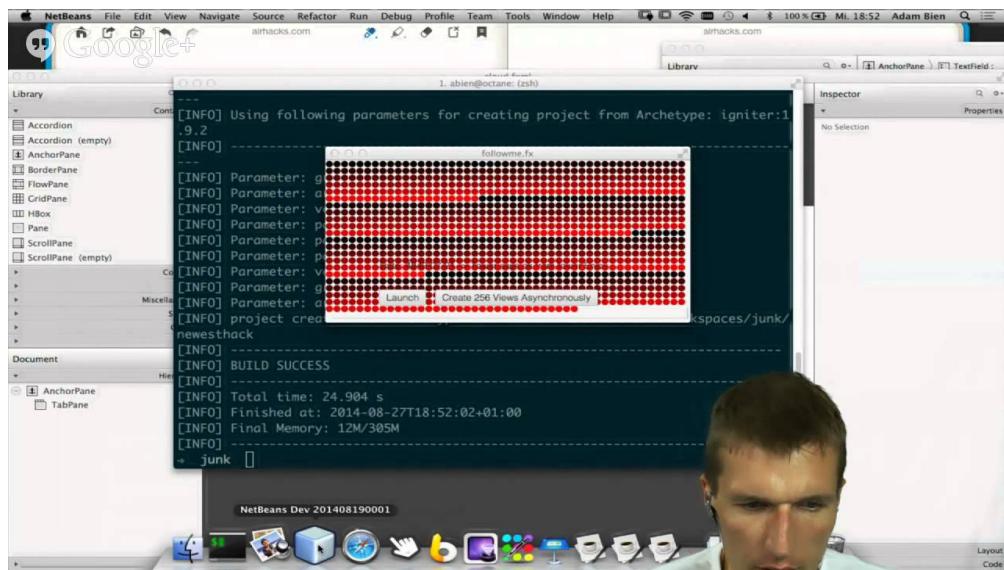
Speaker: Trisha Gee



<http://virtualjug.com/?p=1188>



Opinionated JavaFX 8



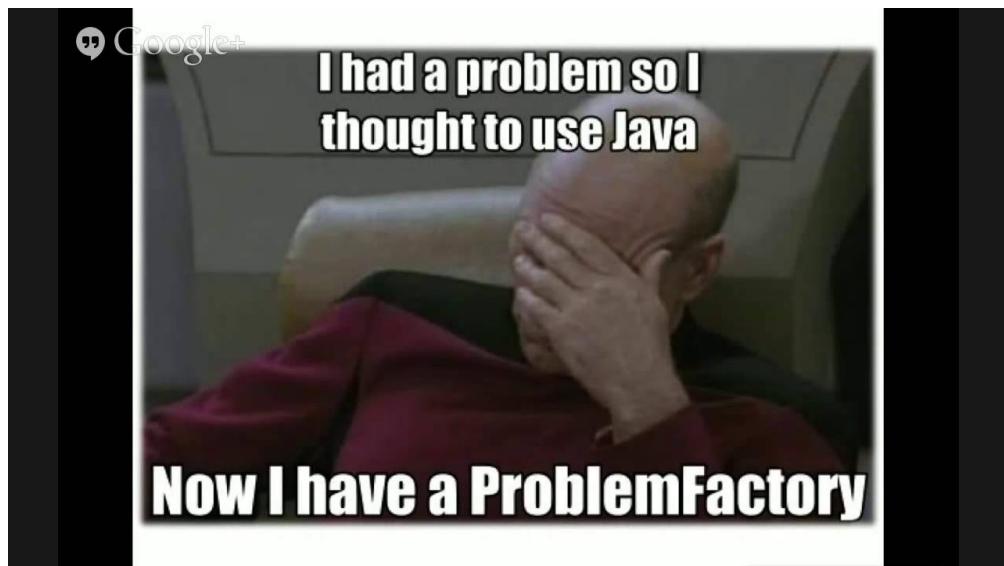
Speaker: Adam Bien



<http://virtualjug.com/?p=1157>



3 years of backend testing at Shazam [the stuff we got wrong]



Speaker: Colin Vipurs



<http://virtualjug.com/?p=1155>



Pragmatic Functional Refactoring with Java 8



Google+

Scenario: be able to link together train journeys
to form longer journeys.



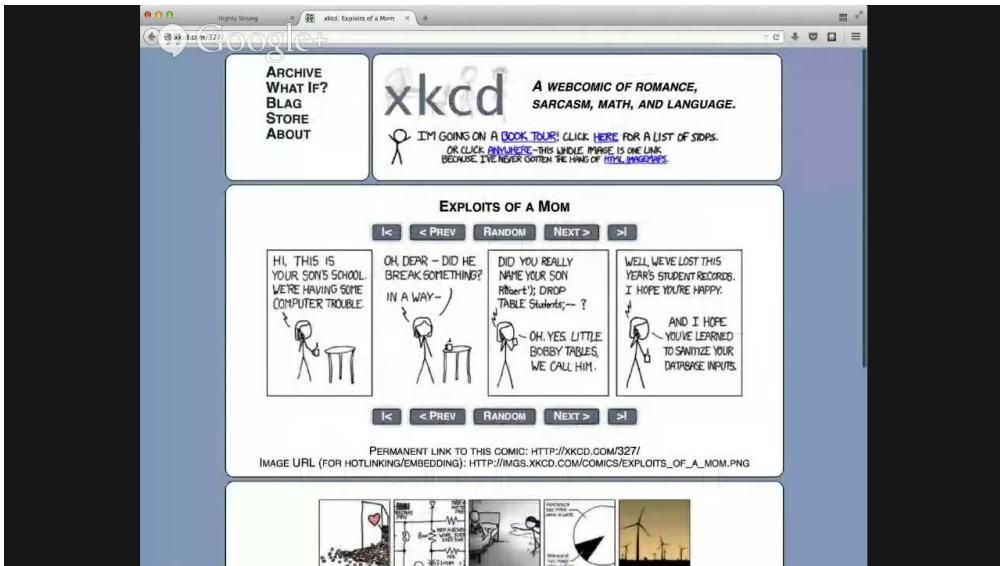
Speakers: Richard Warburton & Raoul-Gabriel Urma



<http://virtualjug.com/?p=1152>



Highly Strung: Understanding your Type System



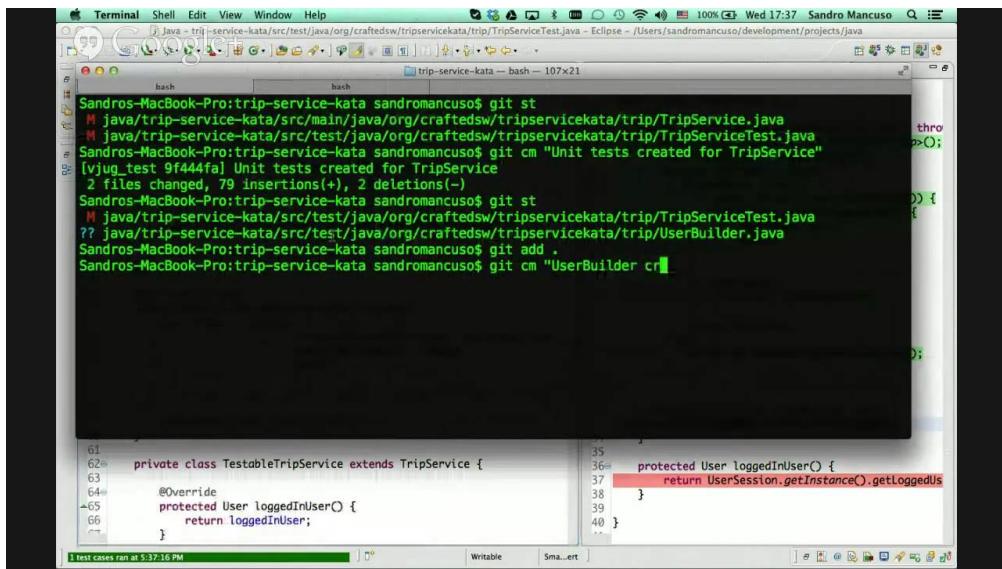
Highly Strung: Understanding your Type System



<http://virtualjug.com/?p=1121>



Testing and Refactoring Legacy Code



A screenshot of the Eclipse IDE interface. The top bar shows "Terminal Shell View Window Help" and the status bar indicates "100% 100% Wed 17:37 Sandro Mancuso". The central workspace has two tabs: "trip-service-kata" and "trip-service-kata". The left pane shows a file tree with Java packages like "org.craftedsw.tripservicekata.trip". The right pane shows a code editor with a Java class:

```
private class TestableTripService extends TripService {
    @Override
    protected User loggedInUser() {
        return loggedInUser;
    }
}
```

The terminal window at the bottom shows a git session:

```
Sandro-MacBook-Pro:trip-service-kata sandromancuso$ git st
M java/trip-service-kata/src/main/java/org/craftedsw/tripservicekata/trip/TripService.java
M java/trip-service-kata/src/test/java/org/craftedsw/tripservicekata/trip/TripServiceTest.java
Sandro-MacBook-Pro:trip-service-kata sandromancuso$ git cm "Unit tests created for TripService"
[vjug_test 9f444fa] Unit tests created for TripService
  2 files changed, 79 insertions(+), 2 deletions(-)
Sandro-MacBook-Pro:trip-service-kata sandromancuso$ git st
M java/trip-service-kata/src/main/java/org/craftedsw/tripservicekata/trip/TripServiceTest.java
?? java/trip-service-kata/src/test/java/org/craftedsw/tripservicekata/trip/UserBuilder.java
Sandro-MacBook-Pro:trip-service-kata sandromancuso$ git add .
Sandro-MacBook-Pro:trip-service-kata sandromancuso$ git cm "UserBuilder cr"
```

Speaker: Sandro Mancuso



<http://virtualjug.com/?p=993>



vJUG panel: Review of 2164 Survey Responses on Java Tools and Technology



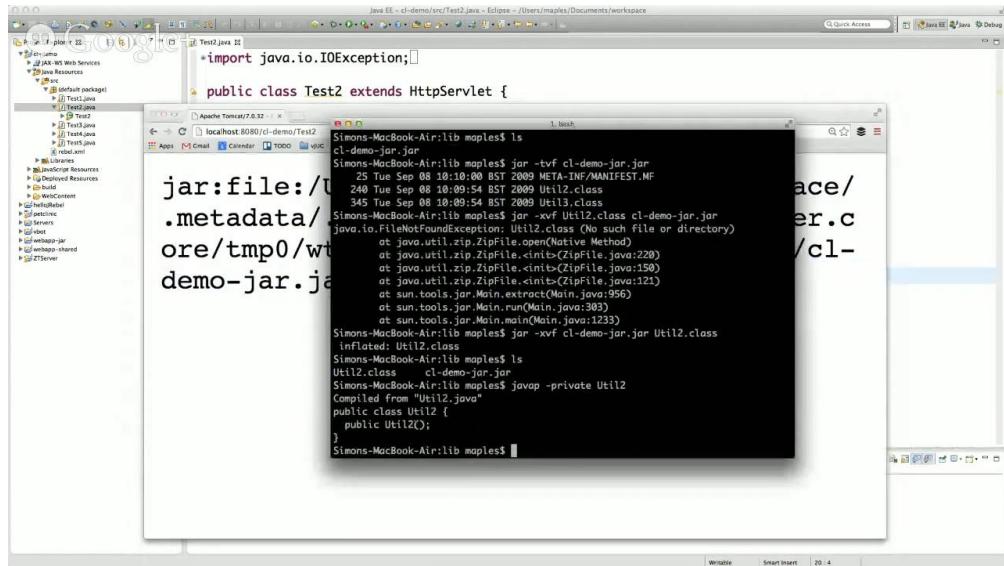
Speakers: Arun Gupta, Josh Long, Marcus Lagergren, Alex Snaps, David Blevins & Oliver White (Moderator). We look at the recent explosive publication of RebelLabs' "Java Tools and Technologies Landscape for 2014", a beautifully-designed, 56-page snapshot of what over 2000 Java developers from around the world are using in their daily development.



<http://virtualjug.com/?p=938>



Java Classloaders: The good, the bad and the WTF.



The screenshot shows the Eclipse IDE interface. On the left, the Project Explorer displays a Java project structure with packages like 'Test1' and 'Test2'. In the center, the code editor shows a Java file named 'Test2.java' with the following code:

```
import java.io.IOException;

public class Test2 extends HttpServlet {
```

To the right of the code editor is a terminal window titled 'Apache Tomcat/7.0.52' showing command-line output. The output shows the execution of a 'jar' command to extract a JAR file, followed by a stack trace indicating a 'FileNotFoundException' for a class named 'Util2.class'.

```
Simons-MacBook-Air:lib maples$ ls
cl-demo-jar.jar
Simons-MacBook-Air:lib maples$ jar -tvf cl-demo-jar.jar
240 Tue Sep 08 10:10:00 BST 2009 META-INF/MANIFEST.MF
240 Tue Sep 08 10:09:54 BST 2009 Util2.class
345 Tue Sep 08 10:09:54 BST 2009 Util3.class
Simons-MacBook-Air:lib maples$ jar -xvf Util2.class cl-demo-jar.jar
java.io.FileNotFoundException: Util2.class (No such file or directory)
        at java.util.zip.ZipFile.openNative(Method)
        at java.util.zip.ZipFile.getInputStream(ZipFile.java:220)
        at java.util.zip.ZipFile.getInputStream(ZipFile.java:150)
        at java.util.zip.ZipFile.getInputStream(ZipFile.java:121)
        at sun.tools.jar.Main.extract(Main.java:956)
        at sun.tools.jar.Main.run(Main.java:303)
        at sun.tools.jar.Main.main(Main.java:1233)
Simons-MacBook-Air:lib maples$ jar -xvf cl-demo-jar.jar Util2.class
Unfiled: Util2.class
Simons-MacBook-Air:lib maples$ ls
Util2.class
Simons-MacBook-Air:lib maples$ javap -private Util2
Compiled from "Util2.java"
public class Util2 {
    public Util2();
}
```

Simons-MacBook-Air:lib maples\$

Speaker: Simon Maple.



<http://virtualjug.com/?p=936>



vJUG Panel: What do the Oracle/Google shenanigans mean to the Java Developer?



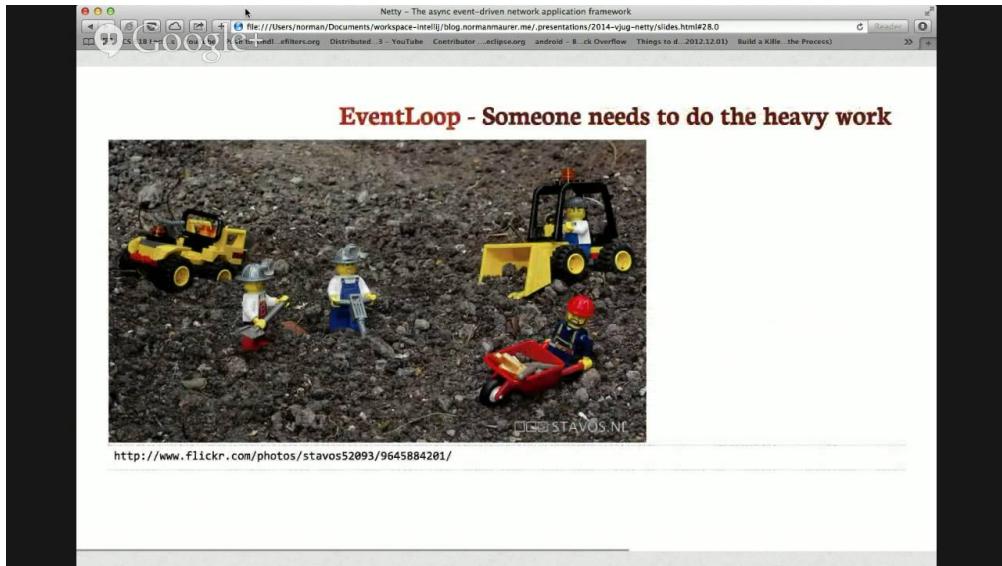
Speaker(s): Bruno Souza, Martijn Verburg and Hildeberto Mendonça, Lukas Eder & Michael Rice. (Moderated by Simon Maple)



<http://virtualjug.com/?p=865>



Netty - The async event-driven network application framework



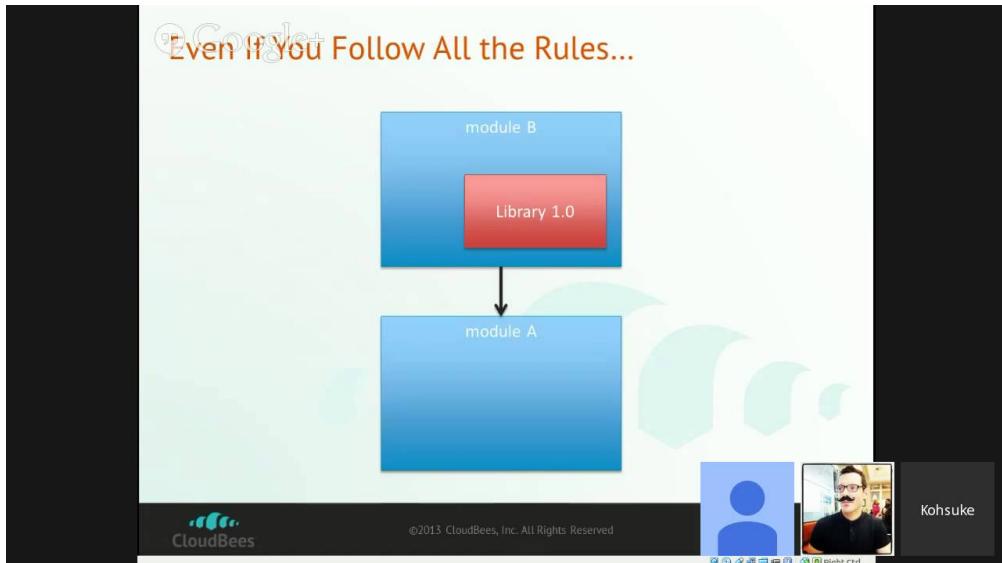
Speaker: Norman Maurer.



<http://virtualjug.com/?p=862>



Evolving code without breaking compatibility



Speaker: Kohsuke Kawaguchi



<http://virtualjug.com/?p=159>



Building Bootiful Applications with Spring Boot

```
package com.joshlong.sparklr;

import org.springframework.context.annotation.Configuration;
import org.springframework.security.oauth2.config.annotation.web.configuration.EnableAuthorizationServer;
import org.springframework.security.oauth2.config.annotation.web.configuration.ResourceServerConfigurerAdapter;
import org.springframework.security.oauth2.config.annotation.web.configuration.AuthorizationServerConfigurerAdapter;
import org.springframework.security.oauth2.config.annotation.web.configuration.OAuth2ClientDetailsServiceConfigurer;
import org.springframework.security.oauth2.config.annotation.web.configuration.OAuth2AuthenticationManagerConfigurer;
import org.springframework.security.oauth2.provider.authentication.OAuth2AuthenticationManager;
```

```
@Configuration
@EnableAuthorizationServer
protected static class ResourceServer extends ResourceServerConfigurerAdapter {

    @Override
    public void configure(HttpSecurity http) throws Exception {
        http
            .requestMatchers().Matchers("/*_a").and()
            .authorizeRequests()
            .and()
            .oauth2Login().and()
            .oauth2ResourceServer().scopes("read");
    }

    @Override
    public void configure(OAuth2ResourceServerConfigurer resources) throws Exception {
        resources.resourceId(CRM_RESOURCE_ID);
    }
}

@Configuration
@EnableAuthorizationServer
protected static class OAuth2Config extends AuthorizationServerConfigurerAdapter {

    @Autowired
    private AuthenticationManager authenticationManager;

    @Override
    public void configure(OAuth2AuthorizationServerConfigurer oauthServer) throws Exception {
        oauthServer.authenticationManager(authenticationManager);
    }

    @Override
    public void configure(ClientDetailsServiceConfigurer clients) throws Exception {
    }
}
```

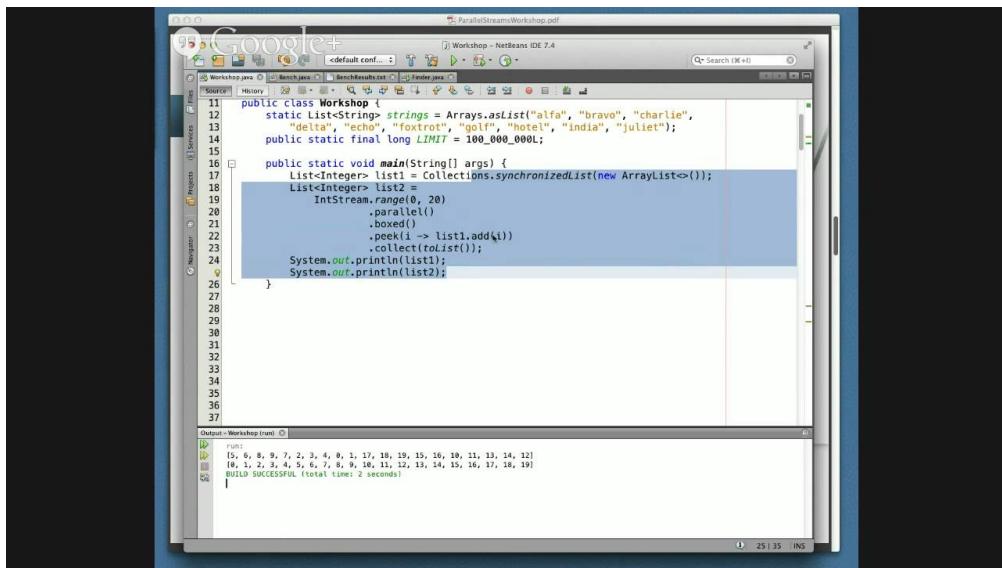
Speaker: Josh Long



<http://virtualjug.com/?p=157>



Java 8 Parallel Streams Workshop



A screenshot of the NetBeans IDE 7.4 interface. The central window shows a Java file named 'Workshop.java' with the following code:

```
11  public class Workshop {
12      static List<String> strings = Arrays.asList("alfa", "bravo", "charlie",
13          "delta", "echo", "foxtrot", "golf", "hotel", "india", "juliet");
14      public static final long LIMIT = 100_000_000L;
15
16      public static void main(String[] args) {
17          List<Integer> list1 = Collections.synchronizedList(new ArrayList<>());
18          List<Integer> list2 =
19              IntStream.range(0, 20)
20                  .parallel()
21                  .boxed()
22                  .peek(i -> list1.add(i))
23                  .collect(toList());
24
25          System.out.println(list1);
26          System.out.println(list2);
27
28
29
30
31
32
33
34
35
36
37 }
```

The 'Output' window at the bottom shows the results of the run:

```
run:
[5, 6, 8, 9, 7, 2, 3, 4, 0, 1, 17, 18, 19, 15, 16, 10, 11, 13, 14, 12]
[0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19]
BUILD SUCCESSFUL (total time: 2 seconds)
```

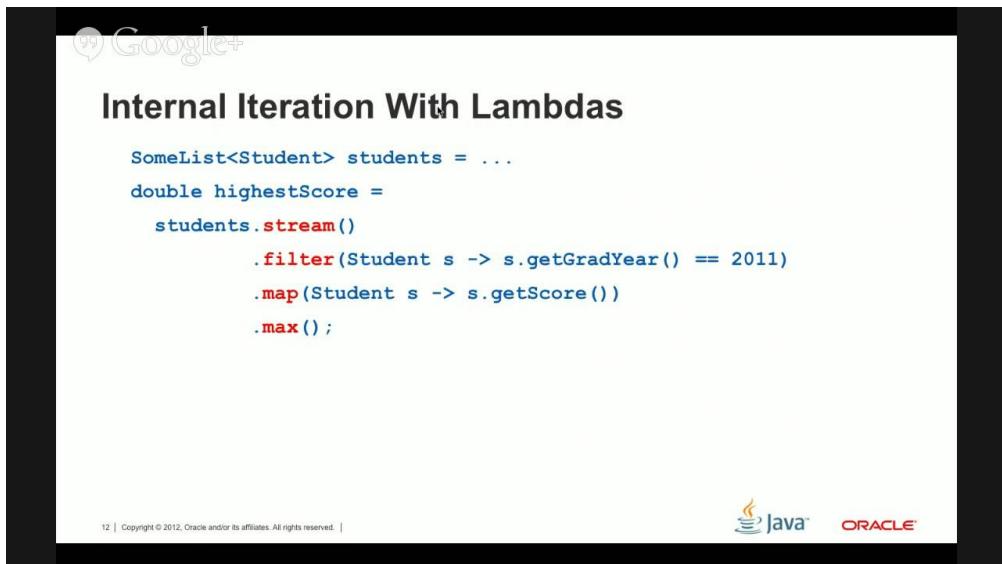
Speaker: Stuart Marks.



<http://virtualjug.com/?p=155>



Project Lambda: Functional Prog. Constructs and Simpler Concurrency in Java SE 8



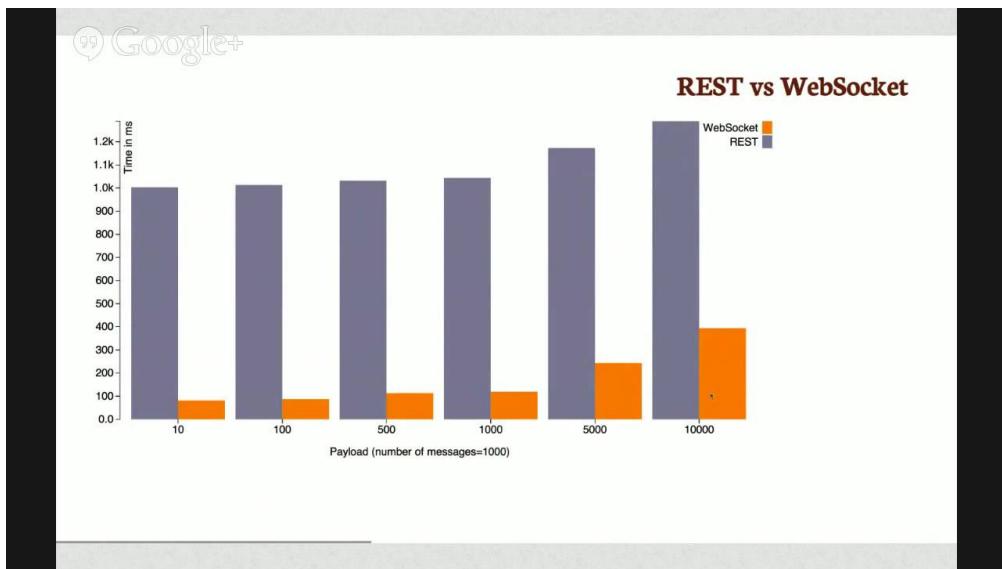
Speaker: Simon Ritter.



<http://virtualjug.com/?p=153>



WebSocket Applications using Java EE 7



Speaker: Arun Gupta.



<http://virtualjug.com/?p=151>



Comparing JVM Web Frameworks



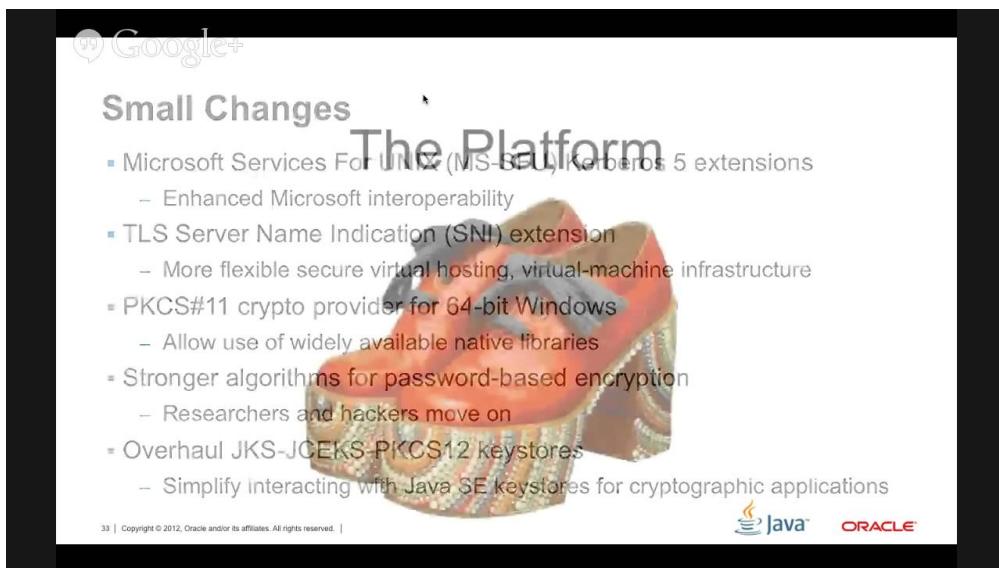
Speaker: Matt Raible



<http://virtualjug.com/?p=149>



55 New Features in Java SE 8



The slide is a Google+ post titled "Small Changes" under "The Platform". It lists several new features:

- Microsoft Services For UNIX (MS-UNIX) Kerberos 5 extensions
 - Enhanced Microsoft interoperability
- TLS Server Name Indication (SNI) extension
 - More flexible secure virtual hosting, virtual-machine infrastructure
- PKCS#11 crypto provider for 64-bit Windows
 - Allow use of widely available native libraries
- Stronger algorithms for password-based encryption
 - Researchers and hackers move on
- Overhaul JKS-JCEKS-PKCS12 keystores
 - Simplify interacting with Java SE keystores for cryptographic applications

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Speaker: Simon Ritter



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How To Do Kick-Ass Software Development



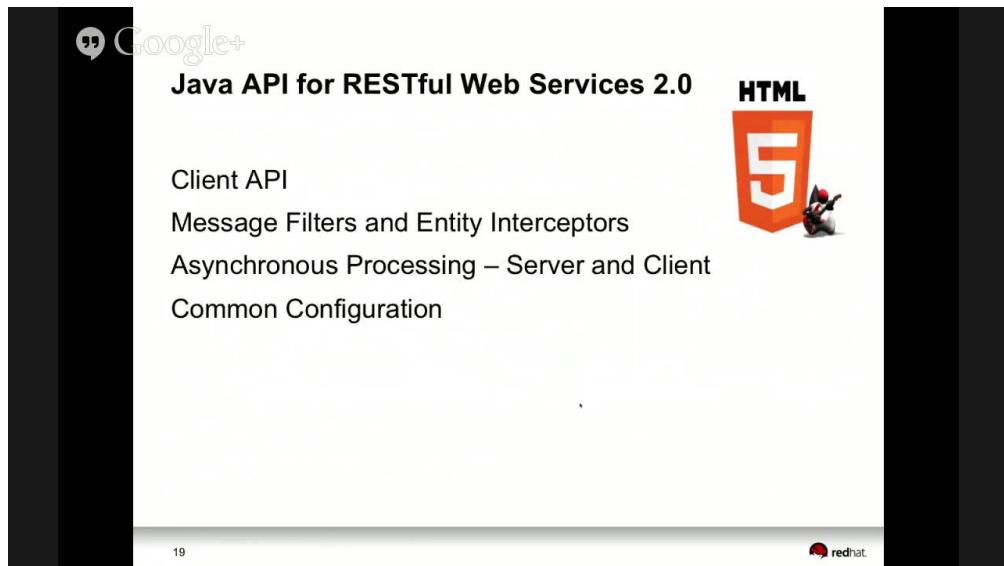
Speaker: Sven Peters



<http://virtualjug.com/?p=144>



Getting started with Java EE 7



Presenter: Arun Gupta.



<http://virtualjug.com/?p=142>



Don't be that guy! Developer Security Awareness



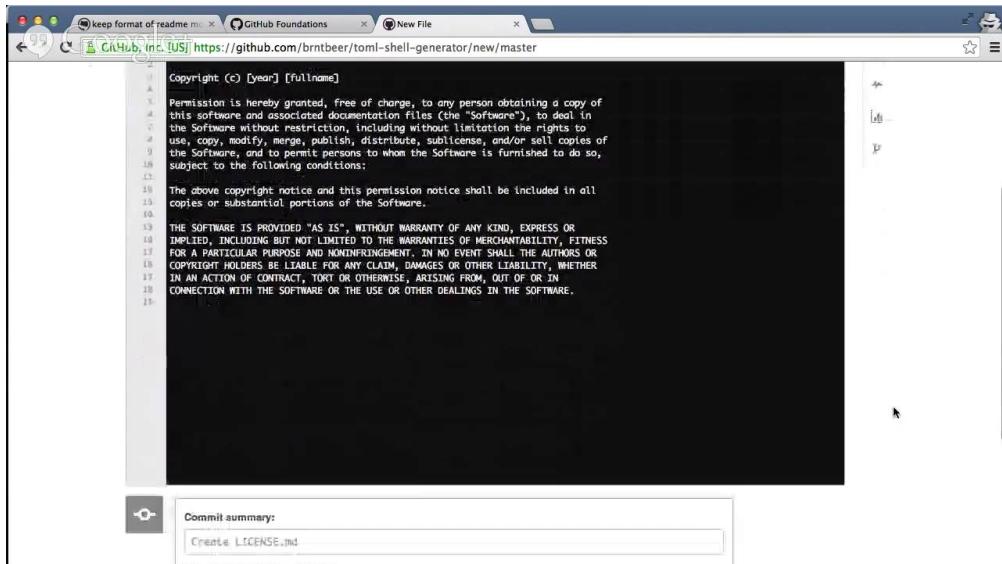
Presenter(s): Markus Eisele.



<http://virtualjug.com/?p=139>



Drive-by Contributions



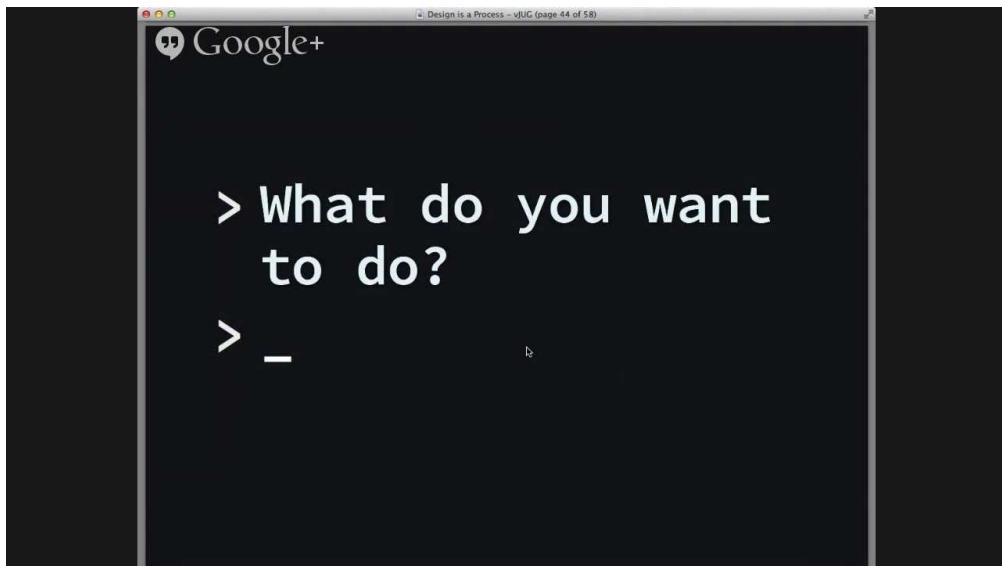
Presenter(s): Brent Beer & Matthew McCullough.



<http://virtualjug.com/?p=137>



Design is a Process, not a Document



Presenter(s): Trisha Gee.



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