Geekspeek Visual Aids - thu 10 aug 2017

Using Inksscape / Sozi / Openclipart / Amazon book covers

1 - Trust Me - I know Java

>> zoom in on dark button

I have been a Professional Java developer since the early ‘80s

2 - Secret Weapon

>> zoom in on secret weapon

Around 2011 I discovered a secret weapon in the Java Ecosystem; it is a weapon that I have been wielding almost every workday day since then …

3 - Groovy Reveal

>> frame big question mark

What’s this secret weapon called?

>> dramatically zoom in on Groovy logo

…. It’s called Groovy

… so let’s talk about what is Groovy …

4 - JVM

>> frame JVM on book title

Groovy is a dynamic scripting language that runs on the Java Virtual Machine

>> zoom out to full cover

… also know as the JVM

The JVM is a portable, mature, and high performance runtime environment that executes Java bytecodes. Normally one obtains bytecodes by compiling Java classes.

Even though Groovy is a dynamic scripting language, it is not interpreted - it \*always\* gets compiled to bytecodes for execution.

5 - Superset of Java

>> zoom in on tiny Java log inside of Groovy logo

>> zoom out on groovy logo

It turns out that the Groovy language is a superset of the Java language. Almost all Java source code can be run as Groovy code.

This means that beginning Groovy programmers can be productive by just typing in the Java syntax that they know and love.

But groovy adds a lot of value by providing a lot of less verbose syntax shortcuts to accomplish the same task.

Begining groovy programmers soon realize that they are typing too much … they can learn the groovy syntax at their own pace.

>> zoom out to muscles

Groovy has been called “Java on Steroids”

6 - dependency mgt

>> maven repo

Groovy code interoperates seamlessly with Java code and libraries.

One really neat thng that the groovy designers did was build in dependency management

In order to use any one of the millions of Java libraries on Maven Central, you just have to

Code @Grab()

>> zoom out to @Grab

7 - functional

>> lambda

Groovy coding style can be imperative, like traditional Java or functional, like Lisp

8 - monkey patching

>> monkey with wrench

Groovy allows “monkey patching” compiled java libraries. This means that you can enhance the functionality of core java libraries or any library for which you do not have the source code.

This allows groovy to add tons of convenience methods to the java standard library.

For example, to slurp in a complete file, you only have to call the getText() method on a java file object. You are free to add your own custom enhancements to any library.

9 - DSLs

>> Domain specific languages title

>> zoom out to book cover

One of groovy’s specialties is creating domain specific languages … also called DSLs

For example ...

>> spock

Spock is a DSL for the specification and testing of Java and Groovy applications

>> Gradle

Gradle is the premier build automation tool that is quickly displacing Ant and Maven build tooling at our company

>> GEB

GEB is a comprehensive browser automation framework that wrappers Selenium Webdriver

10 - builders

>> builders liost

In addiition groovy facilitates creating builders for any type of hierarchical data structure;

Some builders are provided out of the box but it is very easy to create your own builder by implementing an interface with around 5 methods