Groovy on Rails – the search is over

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KIV/TSI Grails Basics

- Grails SDK
- Text Editor
- Command line

- IDE is useful 😊
- SpringSource Tool Suite
- IntelliJ IDEA Ultimate

- Spring
- Hibernate
- Sitemesh
- Groovy
KIV/TSI Grails Basics

- MVC pattern
- Inspired by Ruby on Rails
  - GORM ~ Active Records
- Automated tests
  - Unit testing
  - Integration testing
  - Functional testing via plugins
KIV/TSI Grails

Basics

grails create-app petshop

grails create-domain-class cz.zcu.fav.kiv.tsi.Animal

grails create-controller cz.zcu.fav.kiv.tsi.AnimalController

grails create-service cz.zcu.fav.kiv.tsi.AnimalService

grails create-taglib cz.zcu.fav.kiv.tsi.PetshopTaglib

• Interactive mode since Grails 2
KIV/TSI Grails

Overview
Basics

Domain classes

Controllers
Views
Services
Configuration
Domain classes

- **Attributes:**
  - Standard Java types & classes

- **Constraints:**
  - nullable, blank, maxSize, max, min, range, matches, …
  - creditcard, email
  - validator closure

- **Database model adaptation**
  - static mappings = { … }
  - table, version, cache
  - `<column name>` column: `<column name in db>`, cache: true
Domain classes

- **CRUD methods:**
  - list(), get( ID )
  - save(), delete()

- **Querying data:**
  - Dynamic finders:
    - findBy..., findAllBy..
    - find[All]By[Attribute][Operator][Logic operator]
  - Criteria builder
  - Named queries
  - HQL – loosing the persistence independency
Domain classes

- **Unit testing:**
  - validation
  - custom queries

- **jUnit included**
  - test/unit
  - application context is not available
KIV/TSI Grails

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Controllers

- Glue between model and UI
- No business logic
- Validation
- Incorrect state handling
- Scaffolding included
- Unit testing
Views

- **Scaffolding**
  - On the fly
  - Generated/edited

- **Layouts:**
  - As many as necessary
  - Page bodies – Sitemesh merges together

- **Fragments**
  - Starts with underscore, called without it
KIV/TSI Grails

Views

• TagLibs
  • Namespace
  • Closures
    • Parameter for attributes
    • Parameter for body
  • def mytag = { attrs, body -> … }
• Unit testing
  • Included taglibs
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Services

- Spring beans

- Transaction oriented
  - Follows Spring defined transactions

- Complex logic belongs here
  - Handling complex data operations with different Domain objects
  - withTransaction closure
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Configuration

• **Environments**
  • Development - hot redeploy is working
  • Testing - hot redeploy does not work
  • Production – no redeploy

• **BootStrap**
  • Data prefilling

• **Templates**
  • web.xml, applicationContext.xml, scaffolding templates
Plugins

• Many plugins for different features
  • Persistence
    • NoSQL databases, Cloud databases
  • Rich UI
    • jQuery, UI, ZK OSS, Wicket, GWT
  • Integration
    • Security
    • Gmail, Facebook, Twitter, …
Questions?
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The END

Thanks for your attention