

## *KIV/TSI Grails*

# Groovy on Rails – the search is over

24.10.2012

Tomáš Metz

Twitter: @tommmez

CN Group

[www.cngroup.dk](http://www.cngroup.dk)

## ***KIV/TSI Grails***

**Overview**

**Basics**

**Domain classes**

**Controllers**

**Views**

**Services**

**Configuration**

# ***KIV/TSI Grails***

## **Overview**

### **Basics**

**Domain classes**

**Controllers**

**Views**

**Services**

**Configuration**

## ***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**

## *KIV/TSI Grails*

### **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

## *KIV/TSI Grails*

### 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

## *KIV/TSI Grails*

### Domain classes

- **Unit testing:**
  - validation
  - custom queries
- **jUnit included**
  - test/unit
  - application context is not available

# ***KIV/TSI Grails***

**Overview**

**Basics**

**Domain classes**

**Controllers**

**Views**

**Services**

**Configuration**

## ***KIV/TSI Grails***

### **Controllers**

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

## ***KIV/TSI Grails***

**Overview**

**Basics**

**Domain classes**

**Controllers**

**Views**

**Services**

**Configuration**

## *KIV/TSI Grails*

### 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

# ***KIV/TSI Grails***

**Overview**

**Basics**

**Domain classes**

**Controllers**

**Views**

**Services**

**Configuration**

## ***KIV/TSI Grails***

### **Services**

- **Spring beans**
- **Transaction oriented**
  - Follows Spring defined transactions
- **Complex logic belongs here**
  - Handling complex data operations with different Domain objects
  - with Transaction closure

## ***KIV/TSI Grails***

**Overview**

**Basics**

**Domain classes**

**Controllers**

**Views**

**Services**

**Configuration**

## *KIV/TSI Grails*

### 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

## ***KIV/TSI Grails***

### **Plugins**

- **Many plugins for different features**
  - Persistence
    - NoSQL databases, Cloud databases
  - Rich UI
    - jQuery, UI, ZKOSS, Wicket, GWT
  - Integration
    - Security
    - Gmail, Facebook, Twitter, ...

we make the difference  
in software

***KIV/TSI Grails***

**Questions?**

***KIV/TSI Grails***

**The END**

**Thanks for your attention**