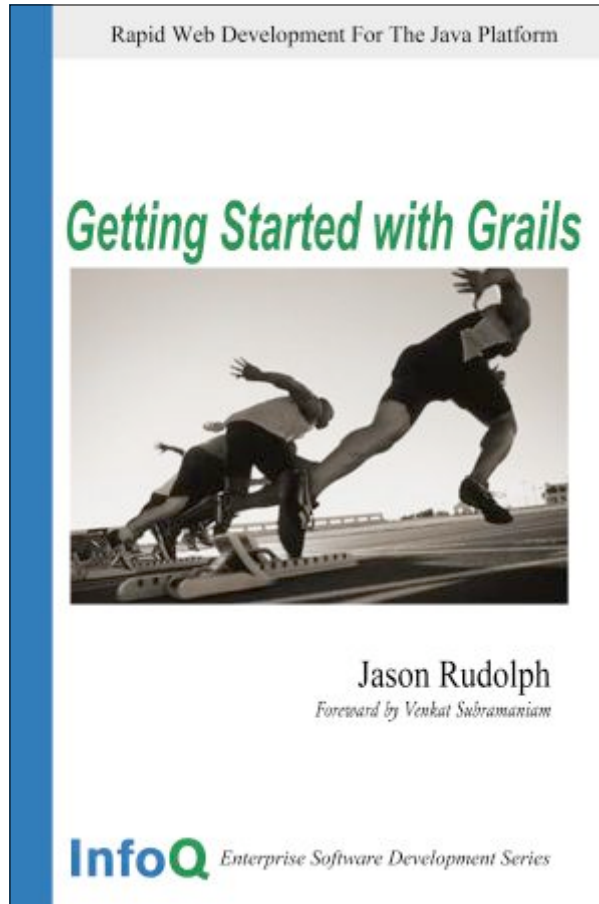


Bending GORM

**5-minute Techniques
for Enterprise
Integration**

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Introduction



- Jason Rudolph
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InfoQ Enterprise Software Development Series

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Agenda

- **The case for GORM**
 - Conventional thinking, unconventional productivity
 - Relationships, any way you like 'em
 - Constraints, declare and be done
- **GORM for non-conformists**
 - Hibernate mappings
 - EJB3 annotations
 - Groovy to the rescue!



IN PROGRESS

DAOs Considered Harmful

- **Grails Object-Relational Mapping (GORM)**
 - Zero-configuration persistence management
 - Rich relationship model
 - Declarative validation
 - Powerful query support
 - Easy scaffolding



Demo

Conventional Thinking

Demo

More GORM Fu

- **Customizable fetch modes**
 - static fetchMode = [someOtherAttribute : 'eager']
- **Composition**
 - static embedded = ['someAttribute']
- **Mapping inheritance**

Declaring Constraints

- **Pre-packaged constraints**

- blank
- min
- range
- creditcard
- max
- unique
- email
- matches
- url
- inList
- nullable
- etc.

- **Custom constraints**

- **Influence schemas and scaffolding**

The Power of Constraint

Demo

Defying Conventional Wisdom

- **Non-conforming table/column names**
- **Custom sequences**
- **Complex keys**
- **Advanced mappings**

No Schema Left Behind

Demo

Hibernate XML - Step-by-Step

- **Define Hibernate artifacts**
 - Add hibernate.cfg.xml
 - Prepare HBM file for each deviant table
 - Consider reverse engineering with Hibernate tools
- **Create Grails domain classes**
- **Add constraints (optional)**

Why Hibernate XML?

- **Standard Hibernate artifacts**
- **Reuse your existing mappings**
- **Full power of GORM**
 - Dynamic persistence methods
 - Constraints
 - Scaffolding

Pimp My EJBs

Demo

EJB3 Step-by-Step

- **Start with Java 5 (or higher)**
- **Update DataSource.groovy**
 - `configClass =`
`GrailsAnnotationConfiguration.class`
- **Add POJOs to src/java**
- **Define hibernate.cfg.xml**
- **Drop in constraints (optional)**

Why Annotate?

- **Standards-based POJOs**
 - Reuse elsewhere
 - Not tied to Grails
- **Full power of GORM (once again)**
 - Dynamic persistence methods
 - Constraints
 - Scaffolding

Rampant Agnosticism

Demo

A Groovier Solution

Demo

This Just In...

Brand New for 1.0!

GORM DSL

```
class Knight {  
  // ...  
  static mapping = {  
  
  
  
  
  
  
  }  
}
```

GORM DSL

```
class Knight {  
  // ...  
  static mapping = {  
    table 'knights'  
  
  }  
}
```

GORM DSL

```
class Knight {  
  // ...  
  static mapping = {  
    table 'knights'  
    version false  
  
  }  
}
```

GORM DSL

```
class Knight {  
  // ...  
  static mapping = {  
    table 'knights'  
    version false  
    id column: 'knight_id'  
  
  }  
}
```


GORM DSL

```
class Knight {  
  // ...  
  static mapping = {  
    table 'knights'  
    version false  
    id column: 'knight_id'  
    columns {  
      numDragonsSlain column: 'dragon_count'  
      // ...  
    }  
  }  
}
```

dē es el

Demo

More Declarative DSL Goodness

- ID generation
- Lazy/eager fetching
- Inheritance strategy
- Index definitions
- Caching

Why DSL?

- **No additional XML or Java needed**
- **Lean syntax**
- **Mappings close at hand**
- **Full power of GORM (one more time)**

Going Further with GORM

- **GORM outside of Grails**
 - grails.org/gorm+-+standalone+gorm
- **Java on GORM**
 - jroller.com/page/ie?entry=java_on_grails

Still More to Explore

- **Custom user types**

- grails.org/hibernate+integration

- **Migrations**

- code.google.com/p/dbmigrate/wiki/Grails

- **Explicit Insert Plugin**

- grails.org/explicit+insert+plugin

Resources

- grails.org
- Downloads
 - Latest release (1.0.1)
 - Development snapshot (1.0.2)
- User guide, tutorials, screencasts, etc.
- Mailing lists (grails.org/mailling+lists)



Resources (cont'd)

- **GORM Documentation**

- grails.org/gorm

- **ORM DSL**

- grails.org/GORM+-+Mapping+DSL

Resources (cont'd)

- **Grails + EJB3 Tutorial**
 - infoq.com/articles/grails-ejb-tutorial
- **Hibernate Tools**
 - hibernate.org/255.html

Rapid Web Development For The Java Platform

Getting Started with Grails



Jason Rudolph

Foreward by Venkat Subramaniam

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Slides & Examples Available
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Please Fill Out Your Evaluations

