

Intro to Grails



Object Partners

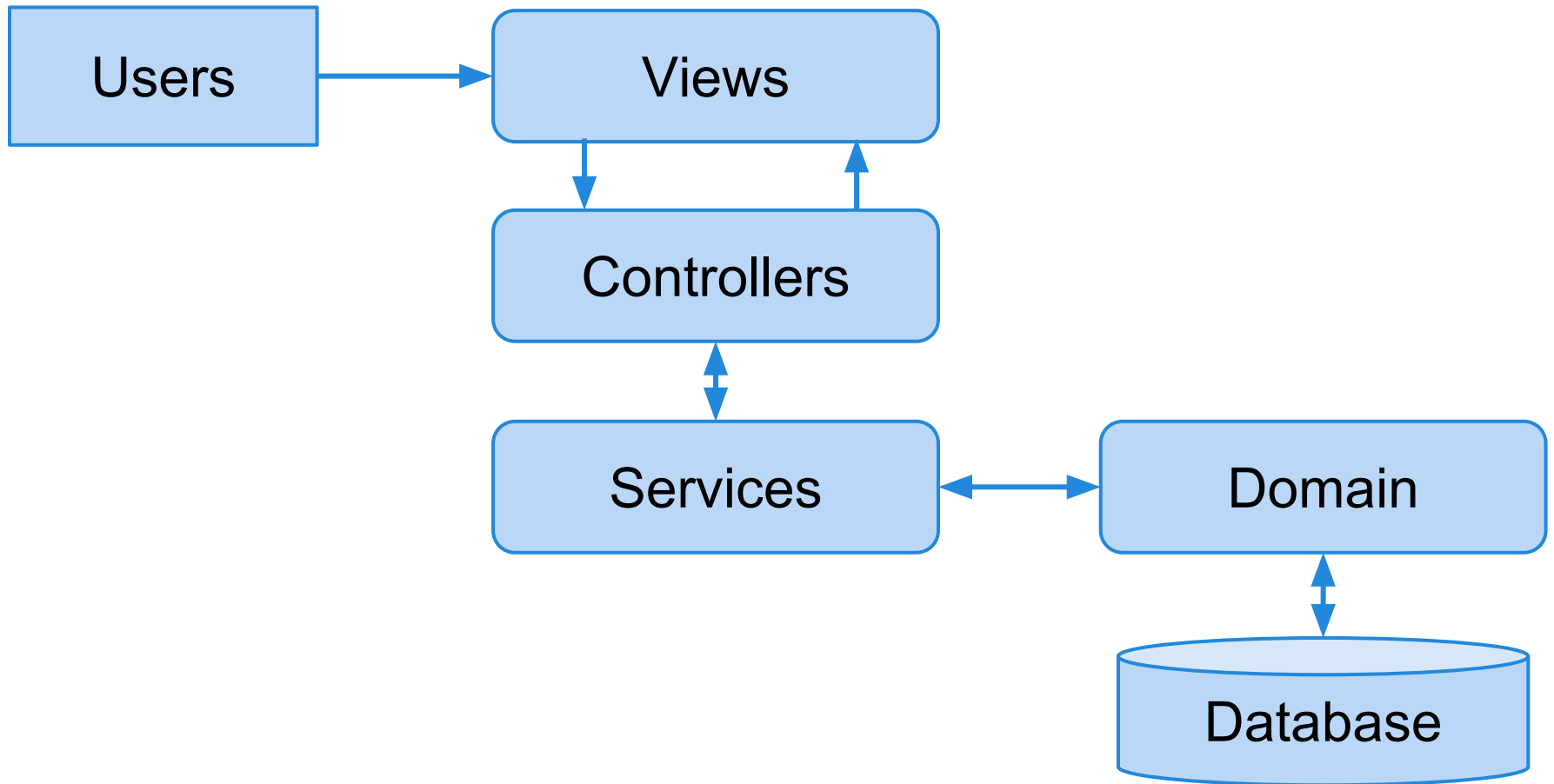
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At the end of this session...

You will be familiar with

- Grails/Spring/Hibernate stack and patterns
- Grails project layout
 - what's there is
 - where it's located
- Grails targets and the command line

Simplified Grails Application Stack



Diving Right In...

Step 1: `grails create-app questionApp`

Step 2: rails create-domain-class ...

```
> rails create-domain-class com.opi.Question
```

While you wait, rails is downloading and installing required resources...

Step 2: rails create-domain-class ...

grails-app/domain/appname/Question.groovy

```
package appname
```

```
class Question {
```

```
    String question
```

```
    String answer
```

```
    String username
```

```
    static constraints = {
```

```
    }
```

```
}
```

Step 2: rails create-domain-class ...

test/unit/appname/QuestionSpec.groovy

```
import grails.test.mixin.TestFor
import spock.lang.Specification

/**
 * See the API for {@link grails.test.mixin.domain.
 * DomainClassUnitTestMixin} for usage instructions
 */
@TestFor(Question)
class QuestionSpec extends Specification {
    def setup() {
    }
    def cleanup() {
    }
    void "test something"() {
    }
}
```


Create a Controller

```
grails create-controller com.opi.Question
```

Edit the Controller

```
package com.opi
```

```
class QuestionController {  
    static scaffold = true  
}
```

Scaffolding

`static scaffold = true`

- part of the rails framework
- only for very simple use cases
- generated dynamically at run time

Grails Targets...

```
grails clean
```

```
grails run-app
```

```
grails test-app
```

```
grails help
```

```
grails help 'target-name'
```

```
grails
```

```
will enter you into the grails 'interactive mode'
```

```
keeps the jvm running, speeds up grails scripts, and  
provides autocomplete
```

Step 3: rails generate-all ...

```
> rails generate-all com.opi.Question
```

Note the package name.

This will generate the scaffolding Grails was generating at run time

Step 3: rails generate-all ...

```
rails-app/controllers/appname/QuestionController.groovy
```

```
rails-app/views/question/
```

```
  _form.gsp
```

```
  create.gsp
```

```
  edit.gsp
```

```
  index.gsp
```

```
  show.gsp
```

```
test/unit/appname/QuestionControllerSpec.groovy
```

Running the app

grails run-app

|Running Grails application

|Server running. Browse to <http://localhost:8080/questionApp>

Controller

```
def index(Integer max) {  
    params.max = Math.min(max ?: 10, 100)  
    respond Question.list(params,  
        model: [questionInstanceCount: Question.count()])  
}
```


Controller to View

Grails locates the view by Convention.

In this case, the index action was called, so Grails looks in the views/question directory for a gsp named index.gsp

URL Mapping

grails-app/conf/UrlMappings.groovy

"/\$controller/\$action?/\$id?(.\$format)?"

"/"(view: "/index")

"500"(view: '/error')

URL Mapping

add:

`"/showQuestions" (controller: "question", action: "index")`

Auto reloading

add this to the QuestionController

```
def hello() {  
    render "I am here!"  
}
```

Adding to Controllers

Go to `/questions/searchByUsername`

Adding to Controllers

Add the method

```
def searchByUsername() { ...}
```

Dynamic Finders

- `InList` - In the list of given values
- `LessThan` - less than a given value
- `LessThanEquals` - less than or equal a give value
- `GreaterThan` - greater than a given value
- `GreaterThanEquals` - greater than or equal a given value
- `Like` - Equivalent to a SQL like expression
- `Ilike` - Similar to a `Like`, except case insensitive
- `NotEqual` - Negates equality
- `InRange` - Between the `from` and `to` values of a Groovy Range
- `Rlike` - Performs a Regexp LIKE in MySQL or Oracle otherwise falls back to `Like`
- `Between` - Between two values (requires two arguments)
- `NotNull` - Not a null value (doesn't take an argument)
- `IsNull` - Is a null value (doesn't take an argument)

The Grails Console

```
> grails console
```

```
—
```


The Grails Console

```
import com.opi.Question

Question q1 = new Question()
Question q2 = new Question(
    question: "What?",
    answer: "Me worry.",
    username: "doug")

Question.findAll()
```

The Grails Console

```
import com.opi.Question

Question q1 = new Question()
Question q2 = new Question(
    question: "What?",
    answer: "Me worry.",
    username: "doug")

Question.findAll()

q1.save()
Question.findAll()
```

The Grails Console

```
import com.opi.Question

Question q1 = new Question()
Question q2 = new Question(
    question: "What?",
    answer: "Me worry.",
    username: "doug")

q1.save()
Question.findAll()

q2.save()
Question.findAll()
```

Finding answers...

<http://grails.org/>

<http://grails.org/Documentation>

<http://grails.org/doc/latest/>

Grails user mailing list - not active anymore,
moving to stack overflow