

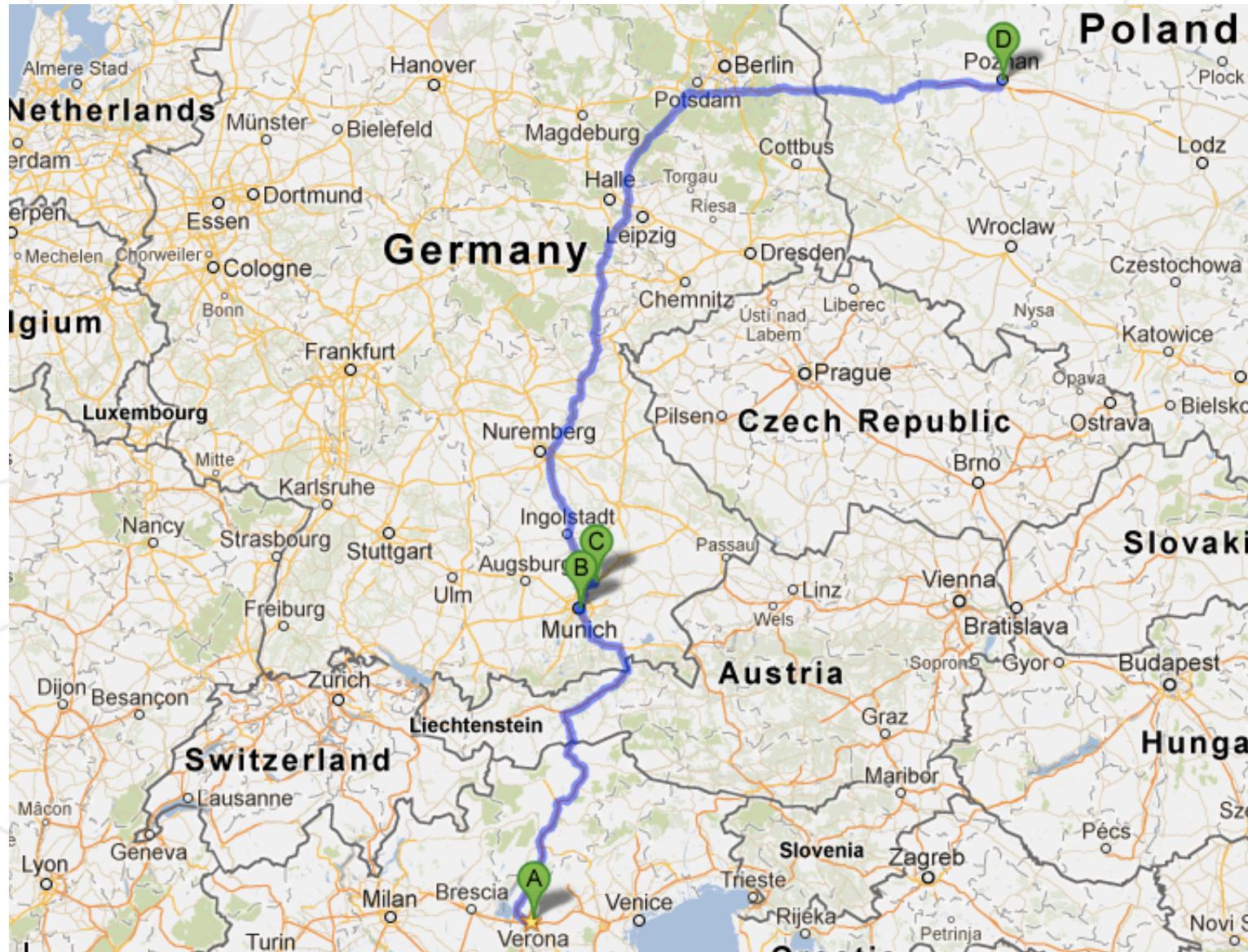
let's move
the **java** world

Ratpack: Classy and Compact Web Apps

James Williams



Where I Was From 1A - 12 Noon Today...



About Me

Co-founder of Griffon

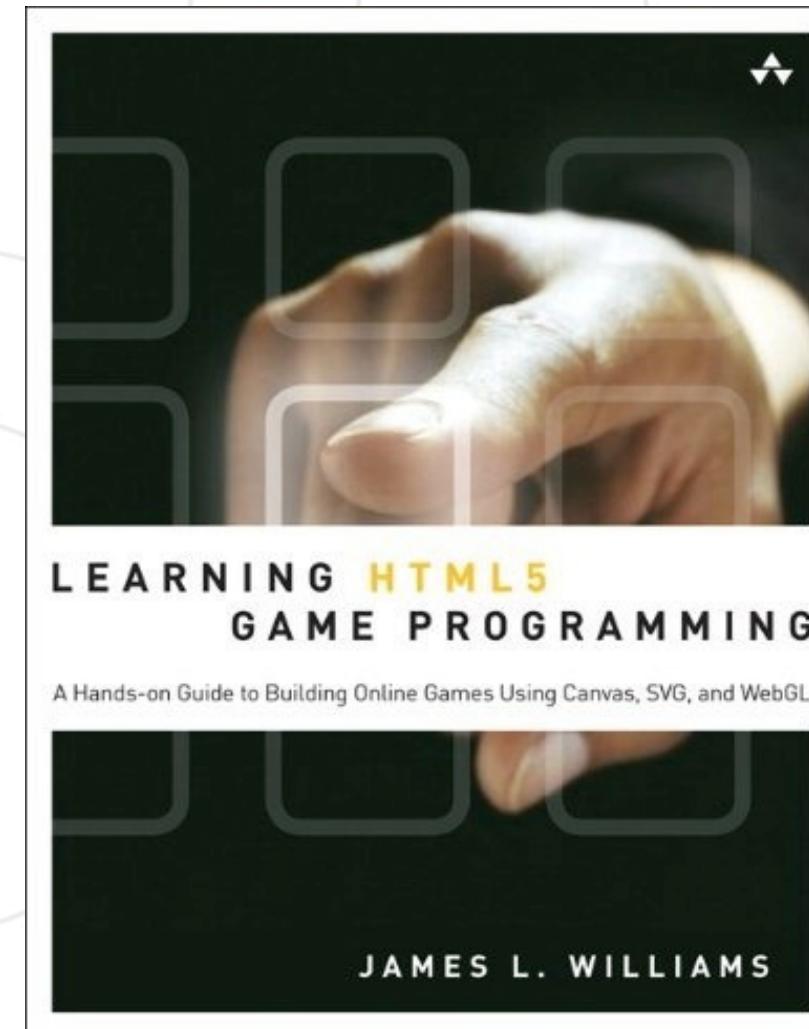
Author of "Learning HTML5 Game Programming"

<http://amzn.to/HTML5-Game-Book>

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About Me

- What are Groovy and Ratpack?
- Routes
- Templates
- Running the App
- Deployment
- Demos

What is Groovy?

- Dynamic language inspired by Java, Ruby, and Python
- Runs on the JVM
- Compiles Java source
- Can mix Java and Groovy classes and libraries
- <http://groovy.codehaus.org>

What is Ratpack?

- Apache 2 Licensed
- Micro web framework
- Inspired by Sinatra (Ruby)
- Powered by Jetty
- Github: <https://github.com/bleedingwolf/Ratpack>

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Ratpack vs (G)rails



When to use Grails?

- Data-driven model
- Large number of models with differing endpoints
- Out of the box persistence integration is a must
- Plan to use Grails plugins

When to use Ratpack?

- Low number of domain classes
- Limited number of routes/endpoints
- MVC paradigm is not needed
- Small but evolving REST API

Routes

- HTTP verb, endpoint, and code block
- Endpoint corresponds to URL fragment
- :<identifier> injects named value into urlparams
- Code block is injected with:
 - request
 - response
 - renderer
 - urlparams

Routes

```
get("/index") {  
// code  
}
```

```
post("/login") {  
// code  
}
```

```
put("/entry/:id") {  
// code  
}
```

Routes

```
get("/index") {  
// code  
}
```

```
post("/login") {  
// code  
}
```

```
put("/entry/:id") {  
// code  
} ==> /post/3  
urlparams.id = 3
```

Example Ratpack App

```
import com.bleedingwolf.ratpack.*  
  
class App {  
    public static void main(String [] args) {  
        def app = Ratpack.app {  
            set 'public', 'public'  
            set 'templateRoot', 'templates'  
  
            post("/") {  
                request.toString() + "\n" + params.toString()  
            }  
            get("/") {  
                "Hello world"  
            }  
        }  
        RatpackServlet.serve(app)  
    }  
}
```

Demo



Templates



SimpleTemplateEngine

- JSP style code blocks
 - <% %>
 - <%= %>
- Relies on \${} object replacement
- JQuery (\$) quirks

Markdown

- Markup language for converting text to (X)HTML
- Supported by many frameworks and websites
- Libraries exist for a number of programming language
- <http://daringfireball.net/projects/markdown>

Markdown Basics

- Headers (#)
- Lists (* or numbers)
- Code Snippets
- Emphasis (* ex. *stuff*)
- Strong/Bold (** ex. **stuff**)
- Links

Sample Markdown App

```
set 'public', 'public'
```

```
set 'templates', 'templates'
```

```
get('/') {  
    def m = new MarkdownProcessor()  
    def p = render 'template.md', [num:4]  
    m.markdown(p)  
}
```

App Structure



Maven-ish

/main/src/groovy
/templates
/public
/lib
[/resources/web.xml](#)
/build.gradle

Standalone

/src/

/app/resources/scripts

/app/resources/templates

/main

/test

Creating a Blog App with Ratpack



App Essentials

- Uses simple NoSQL database
- UI is tweaked Tumblr them
- ~156 lines of Groovy code

Blog CRUD Routes

```
get("/entry/create") {  
    render 'entry/create.html'  
}  
  
get("/entry/show/:id") {  
    def entry = db.get(urlparams.id)  
    render '/entry/show.html', [entry: entry]  
}  
  
get("/entry/delete/:id") {  
    db.remove(urlparams.id)  
}
```

Blog CRUD Routes (cont'd)

```
get("/entry/list") {  
    def list = db.all()  
    list.sort(sortClosure.curry('dateCreated'))  
    list = list.reverse()  
    render 'entry/index.html', [entries: list]  
}  
get("/entry/save") {  
    def entry = new Entry(params)  
    db.save(entry.properties, {obj ->  
        println "Finished saving."  
        new JSONObject([success:true]).toString()  
    });
```

App Essentials

- Uses simple NoSQL database
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- ~156 lines of Groovy code

Demo



Running / Deploying the App



Running the Application

gradle jettyRunWar

Deploying as a War File



Creating a War File

gradle war

Questions ?

