

JUDCon

JBoss Users & Developers Conference

Boston:2011

Develop Rich Web Applications with Seam, RESTEasy and ExtJS



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02 May 2011

Who are these guys?

Agenda

- What is the current landscape?
- Why this approach?
- RESTEasy, ExtJS, jQuery, Seam
- Look at some code (Demo)
- Recap
- How and why you may want to pitch
- Questions and Resources

Current Landscape



A view of the lake of Kawah Ijen; one of the most acidic craters in the world.

Current Landscape - Detail

- Seam for JPA, EJB and JSF integration
- GWT good but maybe not everywhere
- RichFaces, IceFaces, *Faces !
- Development struggles, widget creation
- REST and SOAP
- Spring Web Flow, Struts, etc...

Why this Approach?

- Seam – strong DI & integration application stack (EJB, JSF, JPA, RF)
- ExtJS – client-side, JavaScript framework for building web applications.
- REST – simple web service implemented using HTTP
- jQuery – library that simplifies HTML document traversing, event handling, animating, and Ajax interactions

Demo Time !



Gene Wilder, YOUNG FRANKENSTEIN 1974, Director - Mel Brooks

jQuery – JSON REST

```
11 <script type="text/javascript" src="http://ajax.googleapis.com/ajax/libs/jquery/1.5.2/jquery.min.js"></script>
12 <script type="text/javascript">
13     $(document).ready(function() {
14         $('#refreshButton').click(function() {
15             var requestUrl =
16                 "rest/customer/"; ← REST URI
17             console.log( requestUrl ); //firebug console output
18             $.getJSON(requestUrl, function(data) { ← Execute the request
19                 console.log(this.data); //firebug console output
20                 // bind the data to the html element
21                 $("#name").html(data.name); ← Bind data to HTML element
22                 $("#id").html(data.id);
23             });
24         });
25     });
26 </script>
```

REST – JSON

```
22 @Path("/rest/customer") ← REST URI
23 public class CustomerService
24 {
25     Logger log = LoggerFactory.getLogger(CustomerService.class);
26
27     @GET
28     @Produces("application/json") ← JSON !
29     public StreamingOutput getCustomerJson()
30     {
31         final Customer cust = DAOMock.getCustomer();
32
33         if (cust == null)
34         {
35             throw new WebApplicationException( Response.Status.NOT_FOUND );
36         }
37
38         // return the customer json object
39         return new StreamingOutput()
40         {
41             public void write( OutputStream outputStream ) throws IOException, WebApplicationException
42             {
43                 ObjectMapper mapper = new ObjectMapper();
44                 mapper.writeValue(outputStream, cust); ← Write out the object
45             }
46         };
47     }
}
```

Recap

- It works
- REST is easy
- ExtJS provides a lot of capability OOB
- Seam provides DI and heavy lifting
- jQuery works too
- Solid tooling

Why to Pitch

- For me:
 - Front-end all in JS; back-end all Java
 - Add cool tech to your toolkit; mobile too!
 - Less re-inventing the wheel; do other cool stuff
- For Management:
 - More deterministic development times
 - 'Standardization' of UI technology
 - Less re-inventing the wheel and provide for service re-use

How to Pitch

- Rich UI widgets; rapid development
 - *ExtJS does have a learning curve...*
- RESTful resource endpoints can lead to broad service re-use
- jQuery provides a ton of capability and is worth adding to the toolkit
- Seam does the integration == RAD

Thanks !

Questions ?

Resources

- Presentation and Code:
 - <http://bit.ly/fHzRsJ>
- RESTEasy:
 - <http://www.jboss.org/resteasy/>
- ExtJS:
 - <http://www.sencha.com/products/extjs/>
- jQuery:
 - <http://jquery.com/>
- Contact:
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