Building Portals with Scout
Scout UGM 2016, Ludwigsburg

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Agenda

➔ Portals, what’s new?

➔ Demo

➔ Portals in detail
  - UI
  - Authentication
  - DB & Serialization
  - Replication
Portals, what’s new?
Traditional Scout Applications – BSI CRM

- Used within corporation
- Small number of power users
- Lots of functionality
Product – BSI Portal

- Consumer facing
- Lots of users
- Simple UI/business logic
<table>
<thead>
<tr>
<th>Feature</th>
<th>BSI CRM</th>
<th>BSI Portal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data / Queries</td>
<td>dynamic, complex</td>
<td>simple</td>
</tr>
<tr>
<td>UI</td>
<td>desktop first</td>
<td>mobile first, modern web app</td>
</tr>
<tr>
<td></td>
<td>poweruser</td>
<td>occasional users</td>
</tr>
<tr>
<td></td>
<td>complex input</td>
<td>a lot of read-only data</td>
</tr>
<tr>
<td>Security</td>
<td>Intranet</td>
<td>customer CI /CD</td>
</tr>
<tr>
<td>Availability</td>
<td>high during office hours, shutdown during an upgrade</td>
<td>high</td>
</tr>
<tr>
<td>Scalability</td>
<td>thousands of users</td>
<td>10-thousands of users</td>
</tr>
<tr>
<td></td>
<td>Static</td>
<td>more dynamic</td>
</tr>
</tbody>
</table>
Portals and Scout

- Regular Scout app with java client model
- Some JS code to meet UI requirements

Based on Scout 6.1
BSI Portal System Landscape
Demo
Portals in Detail
UI

Authentication

DB & Serialization

Replication

Authentication Panel:
- Email
- Password
- Login
- Remember password
- Sign In
- Facebook Login
- Google Login

MOM
UI

- Customer’s corporate identity
  - More than styling colors
  - But no intention to implement any style guide 100% accurately
UI – Themes for Styling

• 2 ways of manipulating CSS with Scout:
  • Adding rules
  • Replacing original file
UI - Layout

• Mobile/Tablet is important
  • Custom device transformer
  • No tree in mobile/tablet, instead menu
  • Responsive grid

• Desktop layout
  • No ViewButtons
  • Desktop size depends on content (preferred size), replaced js
UI – Future Improvements

• Keystrokes support
• Focus handling
• Busy indicator
• Error message location
Authentication

- Guest
  - No account, limited functionality

- OAuth2
  - Facebook
  - Google

- Username/password
- Verification with a second factor
Couch DB

- NoSQL
- HTTP/JSON API
- Designed for reliability
- Synchronization
Serialization with Jackson:
Custom Scout Resolver for Polymorphic Types

```java
Person

Address

ElectronicAddress

PhysicalAddress

{
  "name" : "Lena",
  "addresses" : [ {
    "street" : "Förrlibuckstr."
  } ]
}
```
Replication - Setup

initial load, changes

Portal -> MOM -> CRM

changes

Portal DB

MOM

CRM DB

Data Master
Initial Load

- Start with empty db
- Synchronize data from CRM (data master)
- Only allow access to application after initial load:
Replicating Changes

- MOM.subscribe(PortalMom.class, myTopic, listener)
- MOM.publish(PortalMom.class, myTopic, result);
Thanks!

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