JBoss Seam extensions

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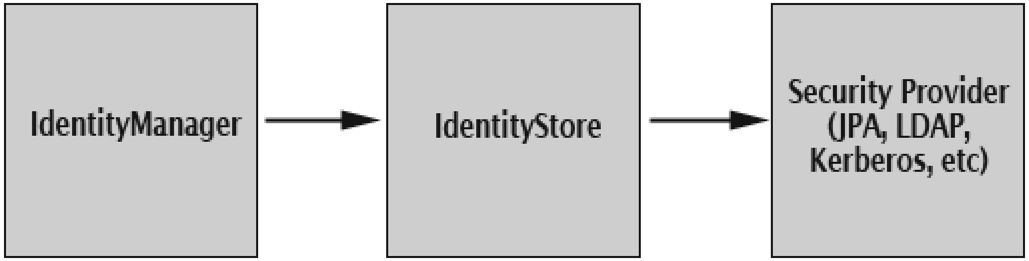
Security

- Authentication (SSO, OpenID)
- Identity management
- Authorization
- Permission management
- CAPTCHA
- Remember me



OpenID

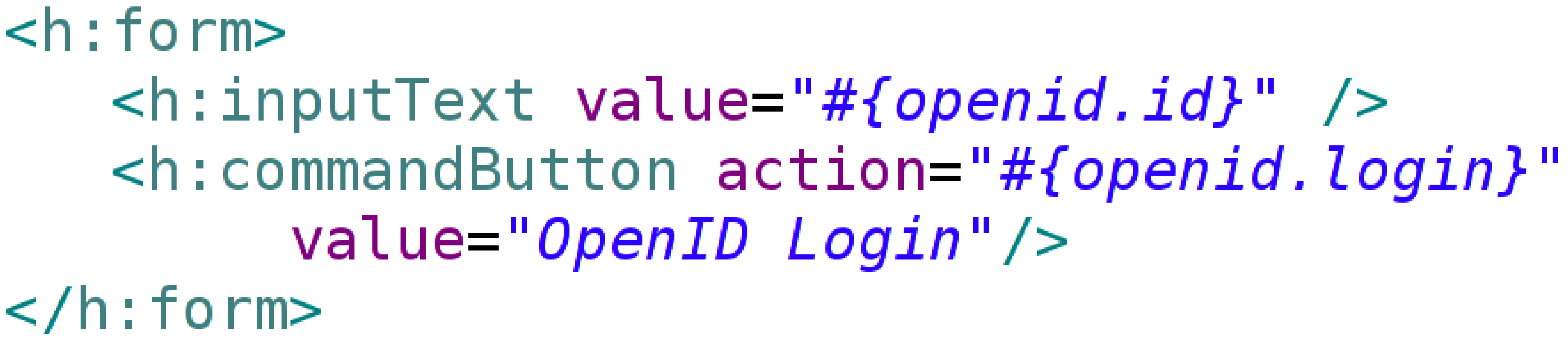
- Community standard for external authentication

faces-config.xml:

```
<lifecycle>
   <phase-listener>
org.jboss.seam.security.openid.OpenIdPhaseListener
   </phase-listener>
</lifecycle>
```

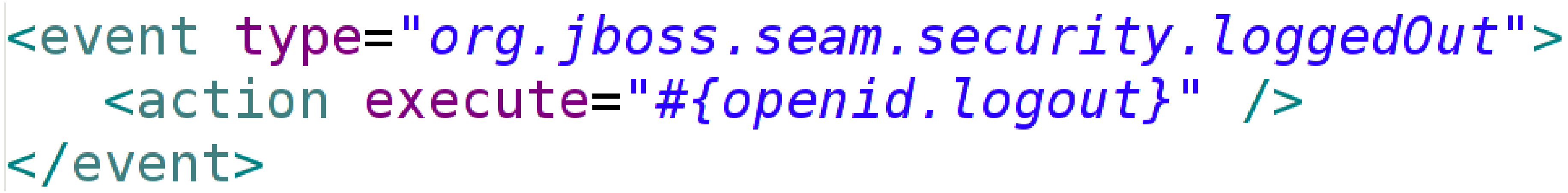
OpenID

- Login:



```
<h:form>
   <h:inputText value="#{openid.id}" />
   <h:commandButton action="#{openid.login}"
        value="OpenID Login"/>
</h:form>
```

- Event handler for logout (when using Seam security):



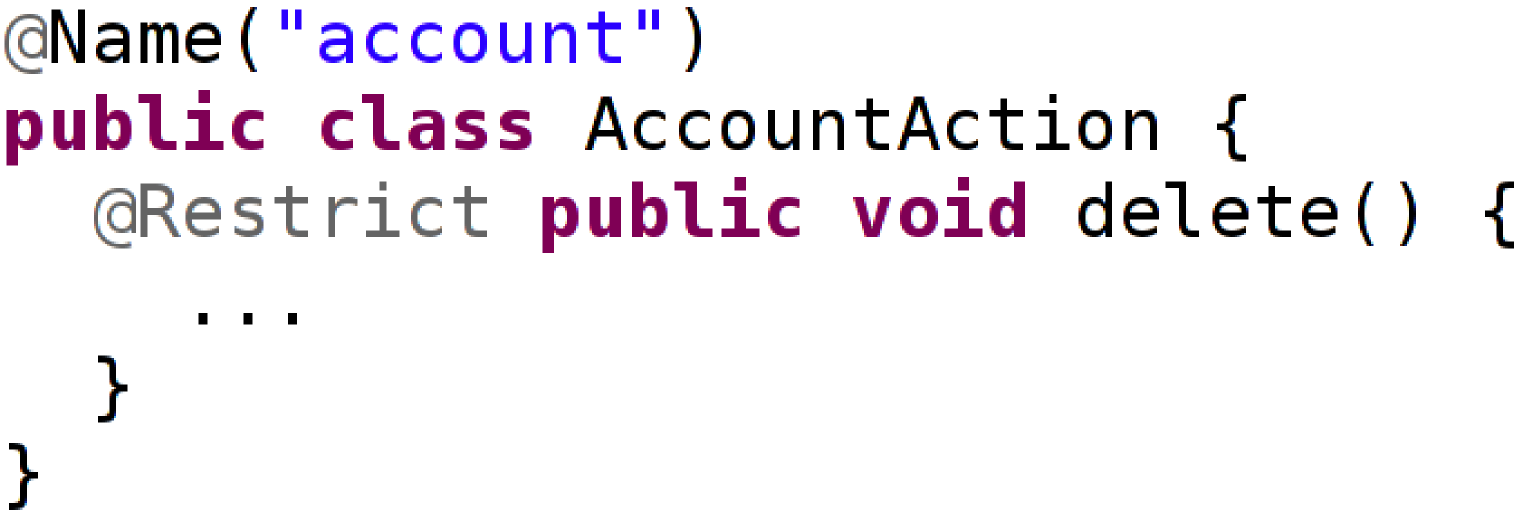
```
<event type="org.jboss.seam.security.loggedOut">
   <action execute="#{openid.logout}" />
</event>
```

Authorization

- Roles vs. Permissions
- @Restrict annotation
  - Method level
  - Class level
- Typesafe annotations
- Securing web pages
- Drools

Authorization

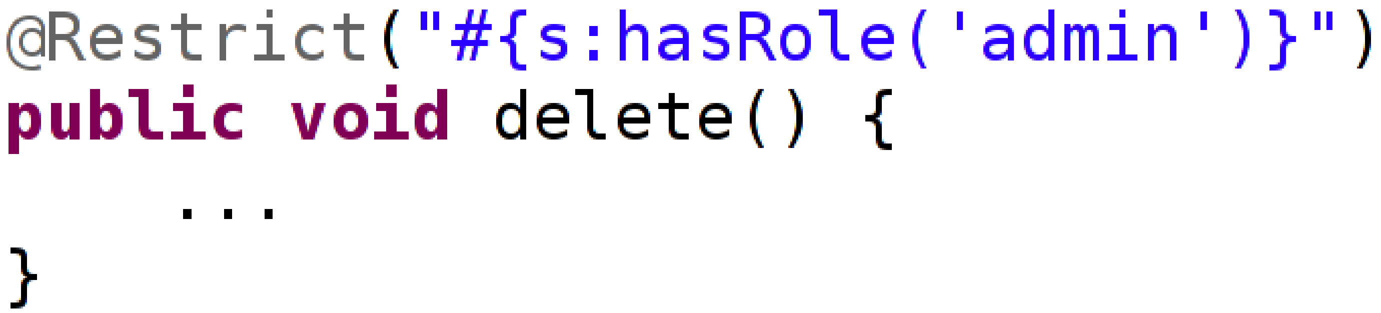
- Permission based



```
@Name("account")
public class AccountAction {
  @Restrict public void delete() {
    ...
  }
}
```

Authorization

- Role based



```
@Restrict("#{s:hasRole('admin')}")
public void delete() {
    ...
}
```

Authorization

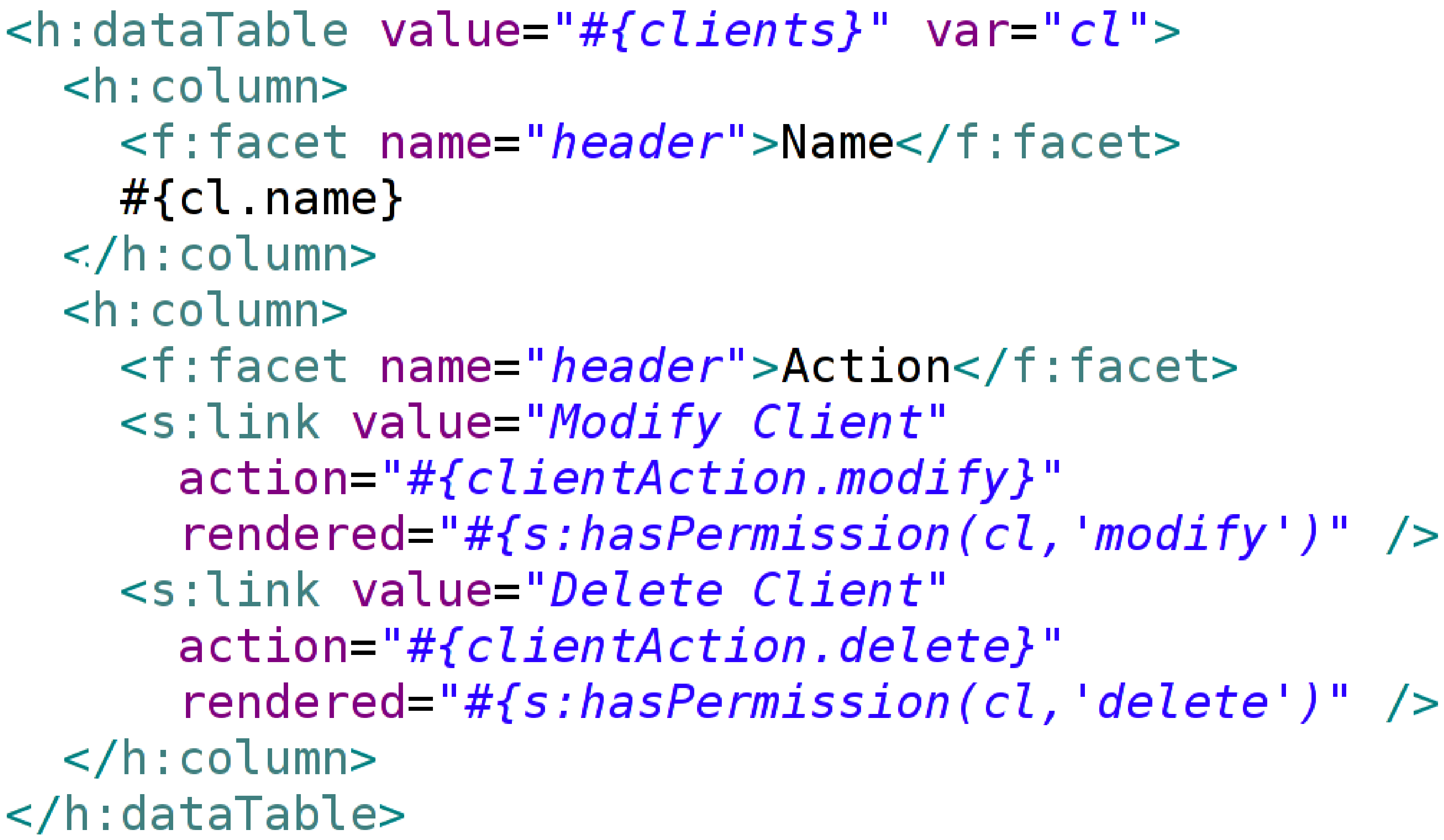
- Securing web pages

```
<page view-id="/reports.xhtml">
  <restrict>#{s:hasRole('admin')}</restrict>
</page>

<h:form class="loginForm"
   rendered="#{not identity.loggedIn}">...

<h:outputLink action="#{reports.listManagerReports}"
   rendered="#{s:hasRole('manager')}">...
```

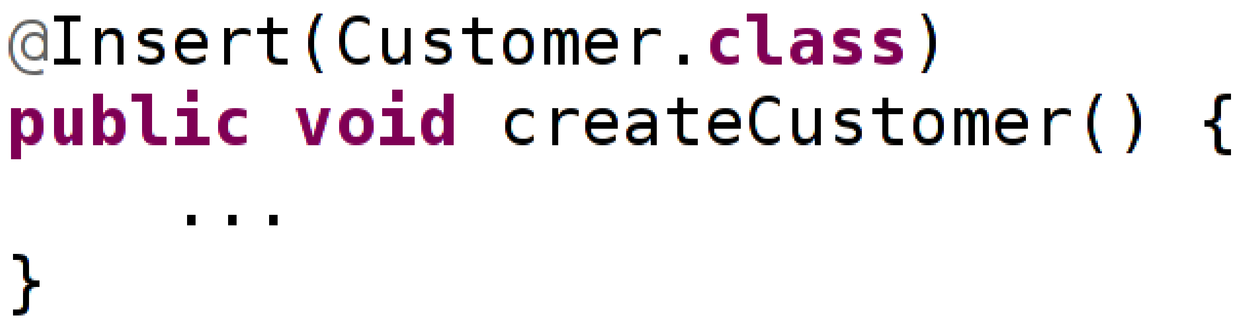
Authorization



```
<h:dataTable value="#{clients}" var="cl">
  <h:column>
    <f:facet name="header">Name</f:facet>
    #{cl.name}
  </h:column>
  <h:column>
    <f:facet name="header">Action</f:facet>
    <s:link value="Modify Client"
      action="#{clientAction.modify}"
      rendered="#{s:hasPermission(cl,'modify')" />
    <s:link value="Delete Client"
      action="#{clientAction.delete}"
      rendered="#{s:hasPermission(cl,'delete')" />
  </h:column>
</h:dataTable>
```

Authorization

- Typesafe annotations
- @Insert, @Read, @Update, @Delete



```
@Insert(Customer.class)
public void createCustomer() {
    ...
}
```

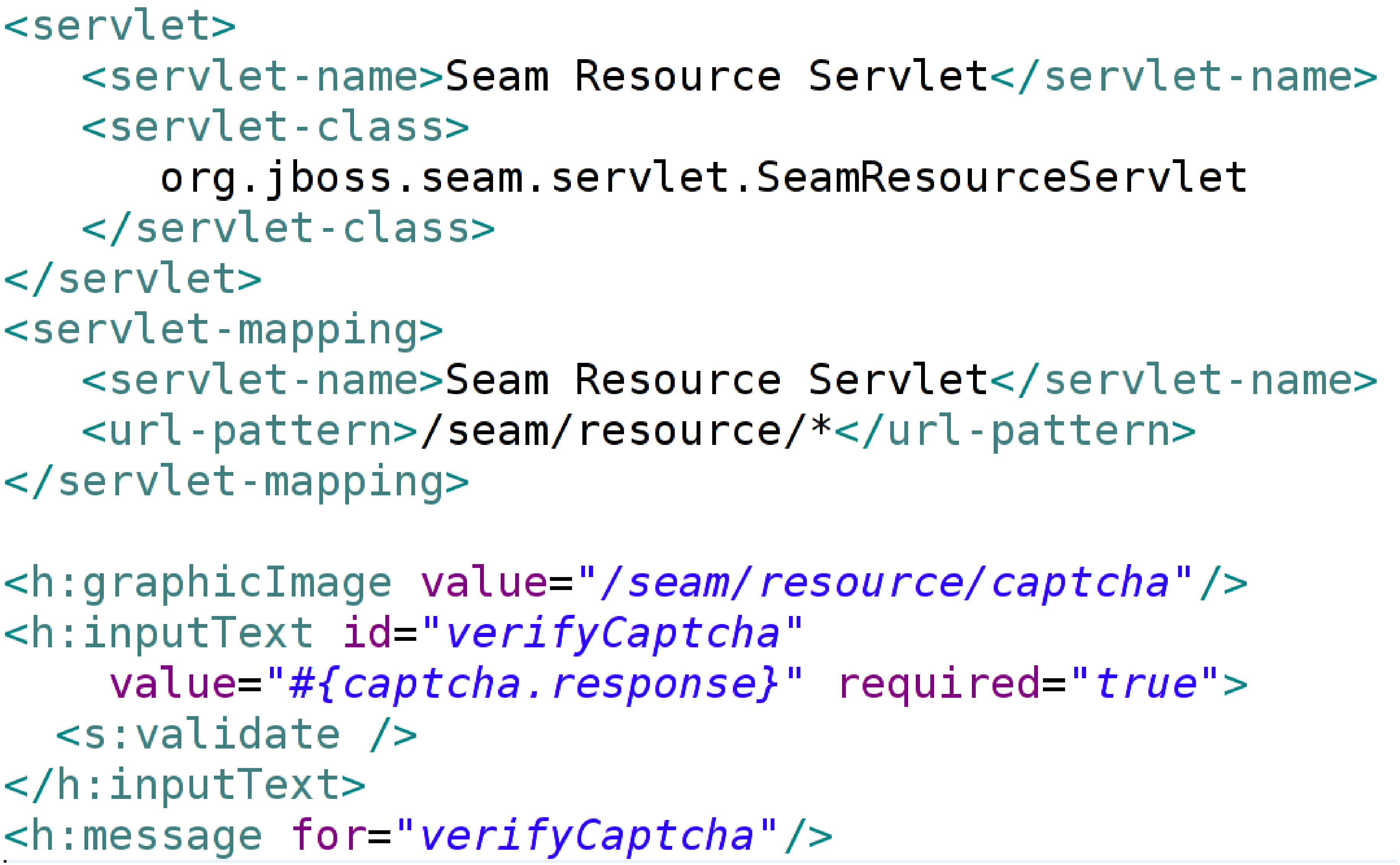
Drools

- Security rules
- Can be called from Seam components or jBPM process definitions
- Dynamically deployable
    - BRMS
    - Hot deploy
- Friday 10:30 – Lukáš Petrovický: Drools & JBoss BRMS

CAPTCHA

- Easy setup and use

CAPTCHA

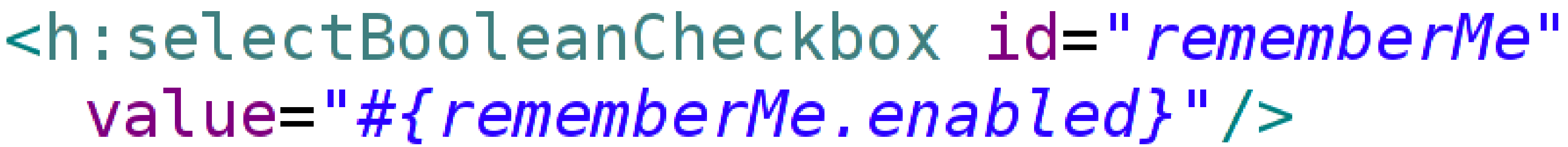


```
<servlet>
   <servlet-name>Seam Resource Servlet</servlet-name>
   <servlet-class>
      org.jboss.seam.servlet.SeamResourceServlet
   </servlet-class>
</servlet>
<servlet-mapping>
   <servlet-name>Seam Resource Servlet</servlet-name>
   <url-pattern>/seam/resource/*</url-pattern>
</servlet-mapping>

<h:graphicImage value="/seam/resource/captcha"/>
<h:inputText id="verifyCaptcha"
    value="#{captcha.response}" required="true">
  <s:validate />
</h:inputText>
<h:message for="verifyCaptcha"/>
```

Remember me

- Username based
- Token based



```
<h:selectBooleanCheckbox id="rememberMe"
   value="#{rememberMe.enabled}"/>
```

Mail

- Sending emails
- Attachments
- Multiple recipients
- HTML/text alternative part

Mail

```
<m:message xmlns="...">
   <m:from name="Peter" address="pete@example.com" />
   <m:to name="#{person.firstname} #{person.lastname}">
     #{person.address}</m:to>
   <m:subject>Try out Seam!</m:subject>
   <m:body>
      <p>
         <h:outputText value="Dear #{person.firstname}" />,
      </p>
      <p>Try out Seam!</p>
      <p>Regards, Pete</p>
   </m:body>
</m:message>
```

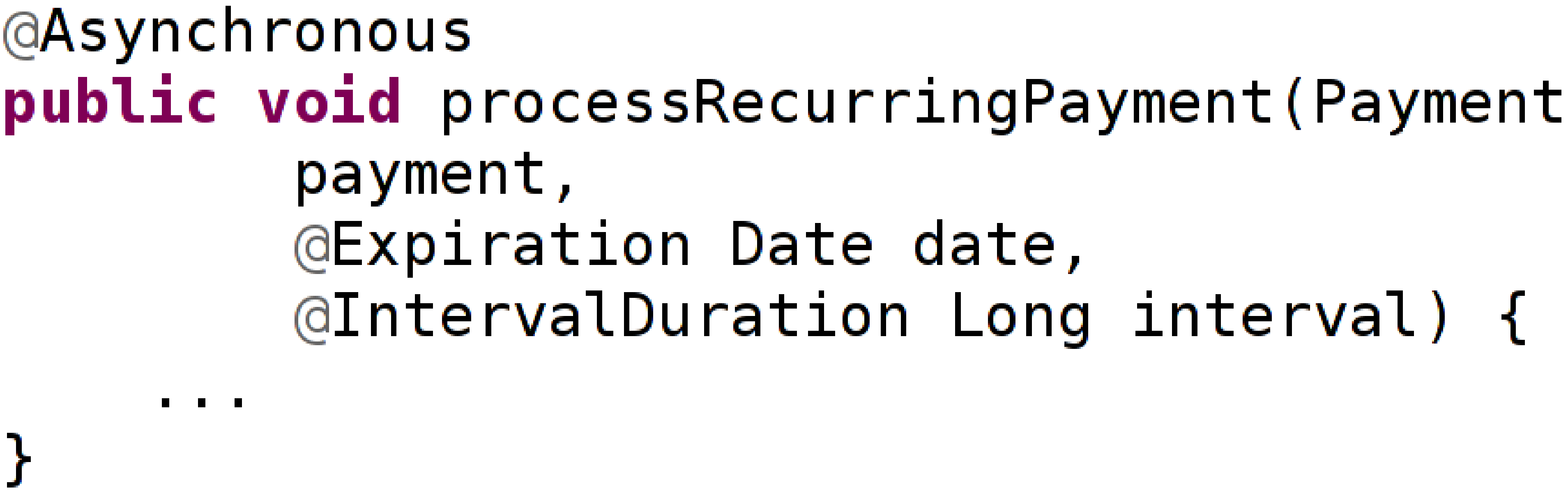
Mail

- Receiving mails
  - Using MDB – limitations
  - Mail-ra – Seam's mail adaptor

Asynchronicity

- Using JMS – overkill
- Dispatchers
  - java.util.concurrent.ScheduledThreadPoolExecutor
  - EJB timer service
  - Quartz – advanced functions
- Transparent @Asynchronous method annotation
- Can be scheduled for later execution

Asynchrocity

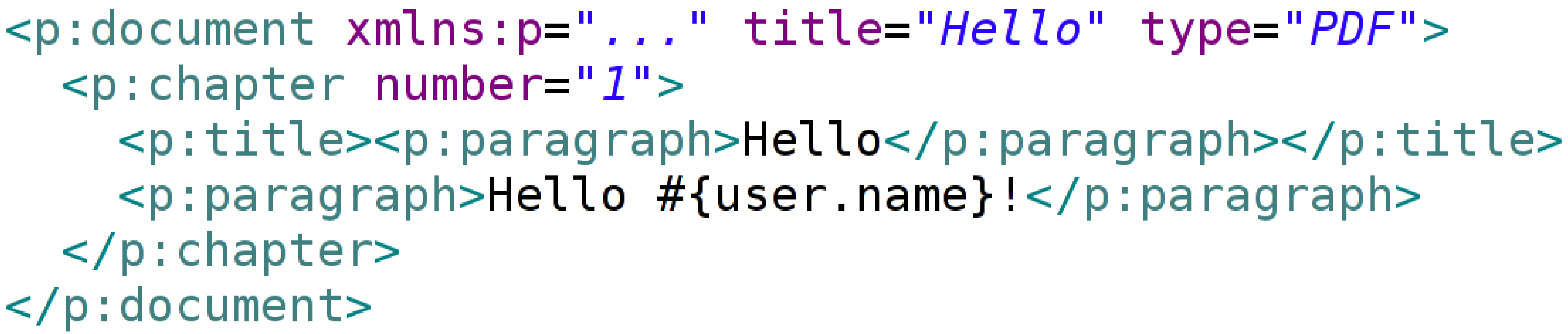


```
@Asynchronous
public void processRecurringPayment(Payment
          payment,
          @Expiration Date date,
          @IntervalDuration Long interval) {
     ...
}
```

iText

- PDF (HTML, RTF) generation
- Using JSF controls rendered into PDF
- Charting (jFreeChart)
  - Bar charts
  - Line charts
  - Pie charts
- Bar codes

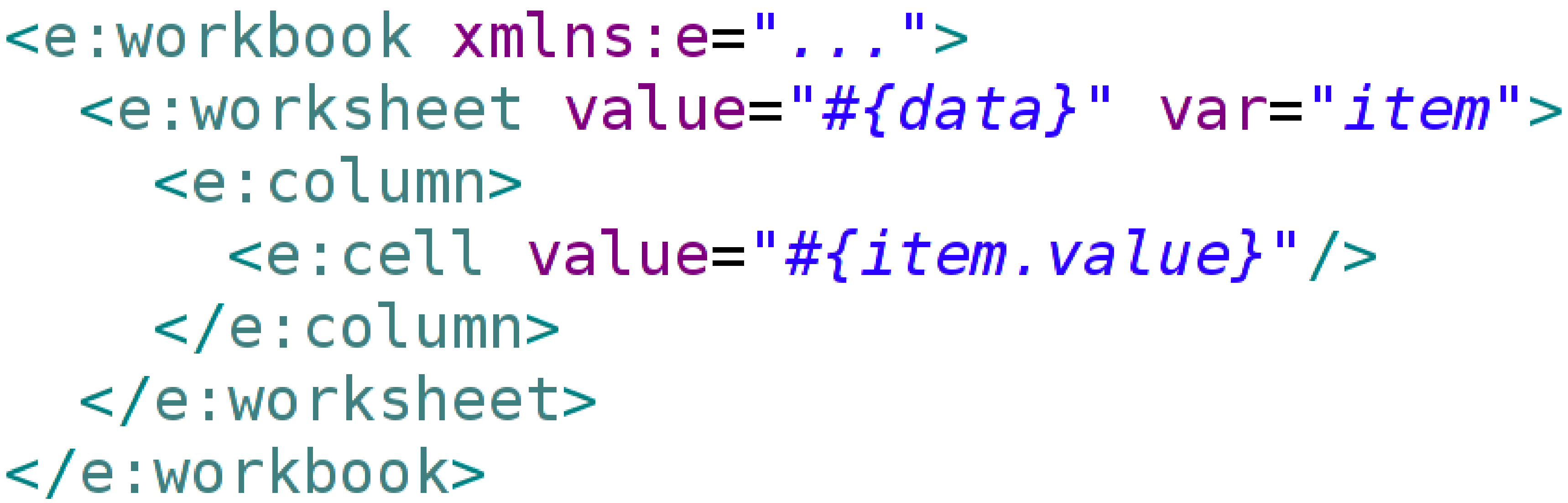
iText



```
<p:document xmlns:p="..." title="Hello" type="PDF">
  <p:chapter number="1">
    <p:title><p:paragraph>Hello</p:paragraph></p:title>
    <p:paragraph>Hello #{user.name}!</p:paragraph>
  </p:chapter>
</p:document>
```

Microsoft® Excel®

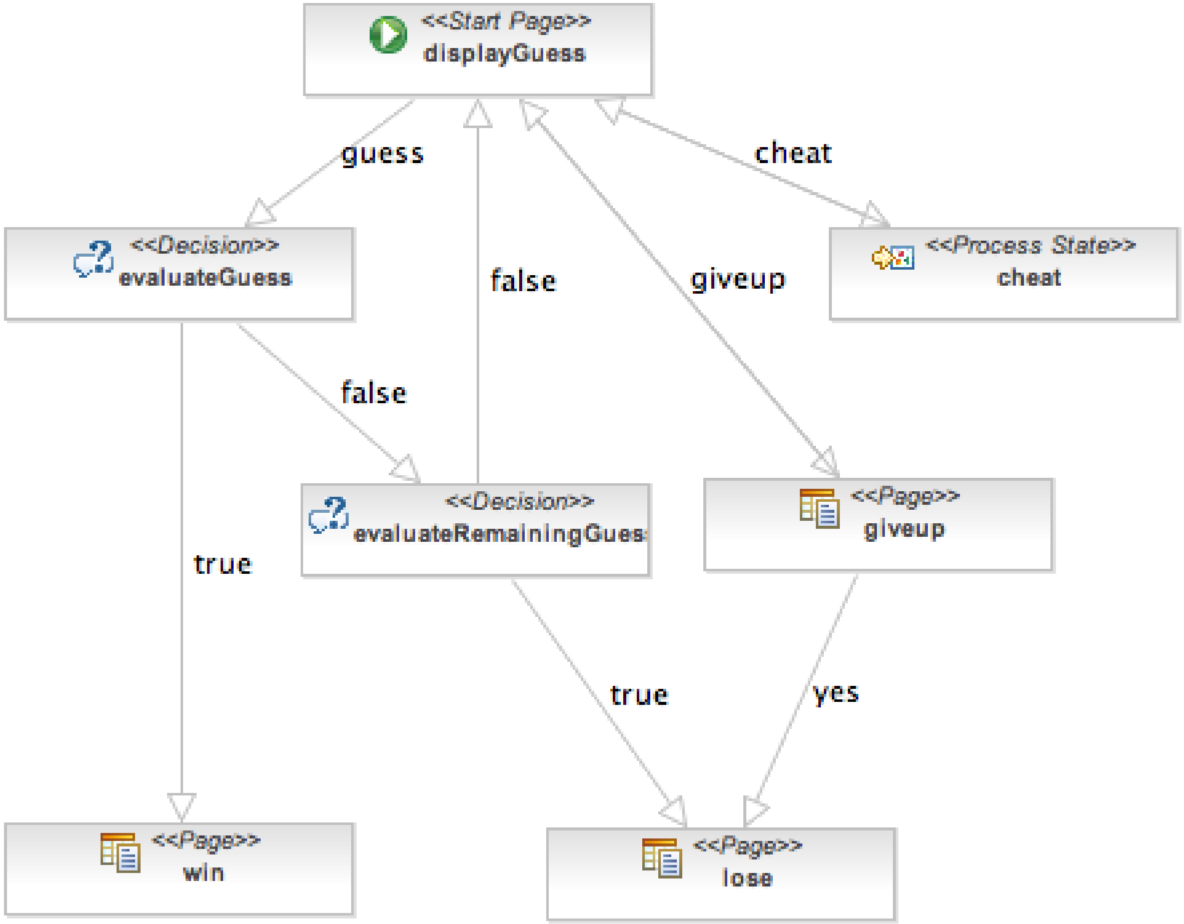
- based on JExcelAPI library



```
<e:workbook xmlns:e="...">
  <e:worksheet value="#{data}" var="item">
    <e:column>
      <e:cell value="#{item.value}"/>
    </e:column>
  </e:worksheet>
</e:workbook>
```

More features

- jBPM for controlling workflow
- Friday 9:30 – jBPM
- Jiří Pechanec



- RSS
- Groovy

Questions?

Questions?

Thank you!