

JavaServer Faces 2.0

Implementing Ajax components



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Web Component
Developer
(SCWCD)
↑

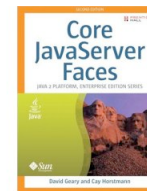
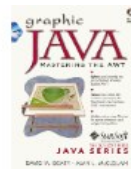
Struts

Apache
Tiles

JSF



Shale
APACHE PROJECT



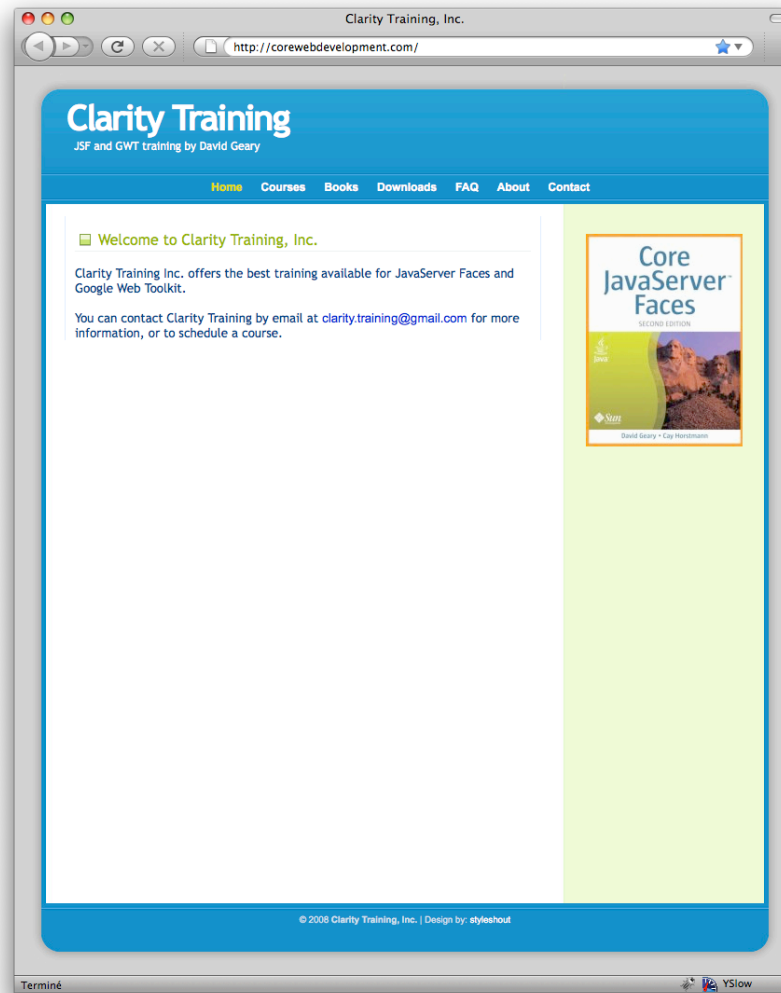
JavaOne



JAOO
conference
- for Developers by Developers

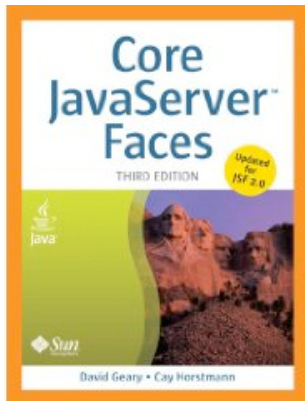
TheServerSide.COM
Your Enterprise Java Community

Clarity Training



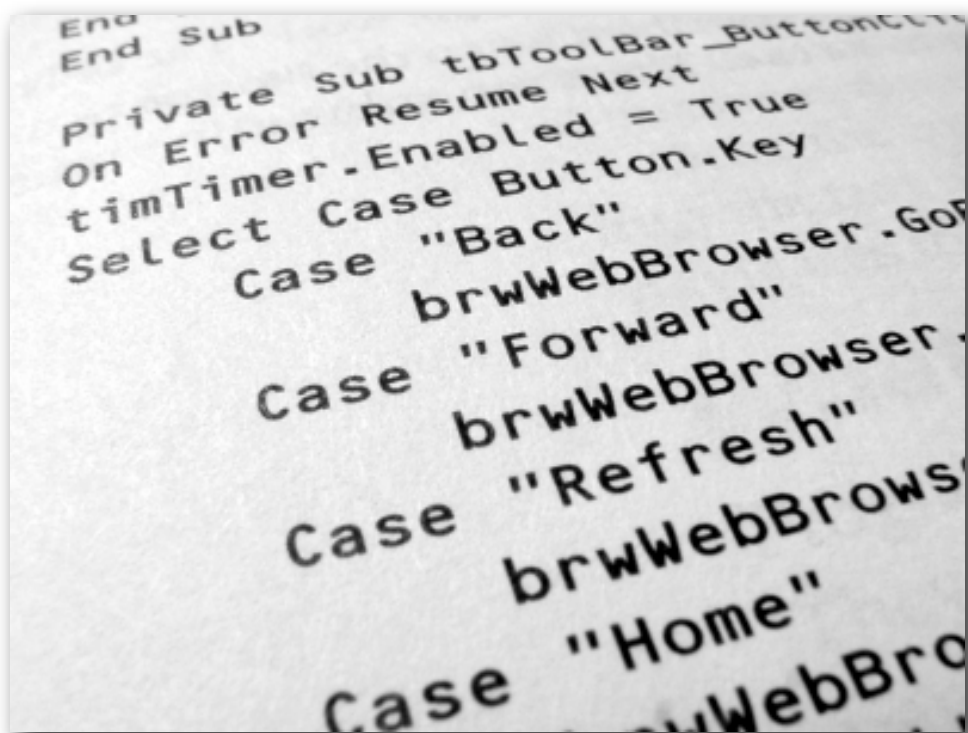
corewebdevelopment.com

Based on



The screenshot shows a web browser window displaying an article on the IBM developerWorks website. The browser's address bar shows the URL 'http://www.ibm.com/developerworks/java/library/j-jsf2fu1/index.html'. The page header includes the IBM logo and navigation links like 'Home', 'Solutions', 'Services', 'Products', 'Support & downloads', and 'My IBM'. The article title is 'JSF 2 fu, Part 1: Streamline Web application development' with a subtitle 'Simplify navigation, eliminate XML configuration, and easily access resources with JSF 2'. The author is 'David Geary, President, Clarity Training, Inc.' The article includes a summary, a date of '12 May 2009', a level of 'Intermediate', a PDF download option, and an average rating of 4.5 stars based on 49 votes. A 'Table of contents' sidebar on the right lists topics like 'The obligatory mapping-based Web services mashup example' and 'Tip 1: Get rid of XML configuration'. The main content area begins with a paragraph about the 'ivory towers' debate in web application frameworks.

Code

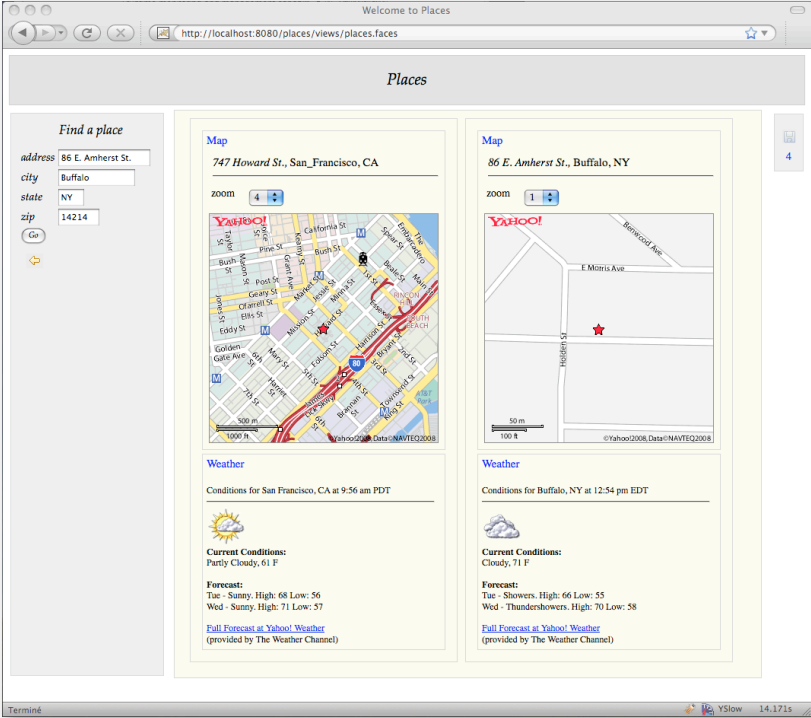


```
End sub
End sub
Private Sub tbToolBar_ButtonClick
On Error Resume Next
timTimer.Enabled = True
Select Case Button.Key
    Case "Back"
        brwWebBrowser.GoBack
    Case "Forward"
        brwWebBrowser.GoForward
    Case "Refresh"
        brwWebBrowser.Refresh
    Case "Home"
        brwWebBrowser.Home
```

<http://code.google.com/p/geary-nfjs>

svn co <http://geary-nfjs.googlecode.com/svn/trunk/> geary-nfjs-read-only

Demonstration



This session

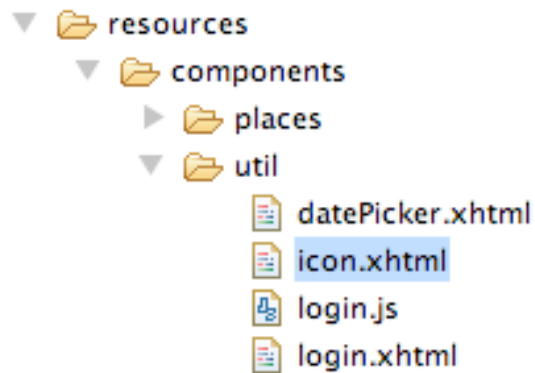
- Composite components
- Ajax with JSF 2
- Ajax validation
- Ajax progress bar
- Ajax components

Composite components

- Composite components...
 - ...are simple to implement
 - ...require no configuration
 - ...support fast iterative development (without redeploying the application)

Using composite components

```
<html xmlns="http://www.w3.org/1999/xhtml"
      xmlns:util="http://java.sun.com/jsf/composite/components/util">
  ...
  <util:icon .../>
  ...
</html>
```



Using an icon

```
<html xmlns="http://www.w3.org/1999/xhtml"
      xmlns:util="http://java.sun.com/jsf/composite/components/util">

  <util:icon image="#{resource['images:disk-icon.png']}"
            actionMethod="#{sourceViewer.showSource}"
            styleClass="icon"/>

</html>
```

Implementing the icon: attributes

```
<html xmlns="http://www.w3.org/1999/xhtml"
      xmlns:h="http://java.sun.com/jsf/html"
      xmlns:composite="http://java.sun.com/jsf/composite">

  <composite:interface>
    <composite:attribute name="image"      required="true" />
    <composite:attribute name="styleClass"  default="icon" />
    <composite:attribute name="actionMethod" method-signature="java.lang.String action()" />
  </composite:interface>

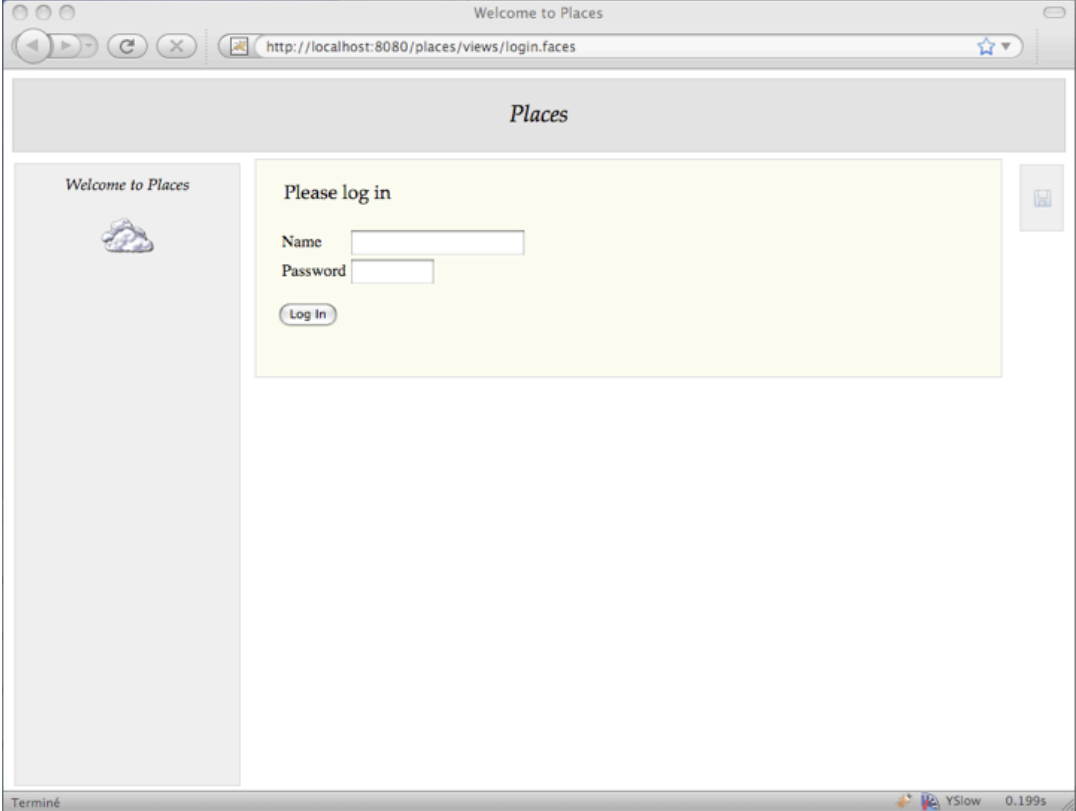
  <composite:implementation>
    <h:form>
      <h:commandLink action="#{cc.attrs.actionMethod}">

        <h:graphicImage url="#{cc.attrs.image}"
                        styleClass="#{cc.attrs.styleClass}" />

      </h:commandLink>
    </h:form>
  </composite:implementation>

</html>
```

Demonstration

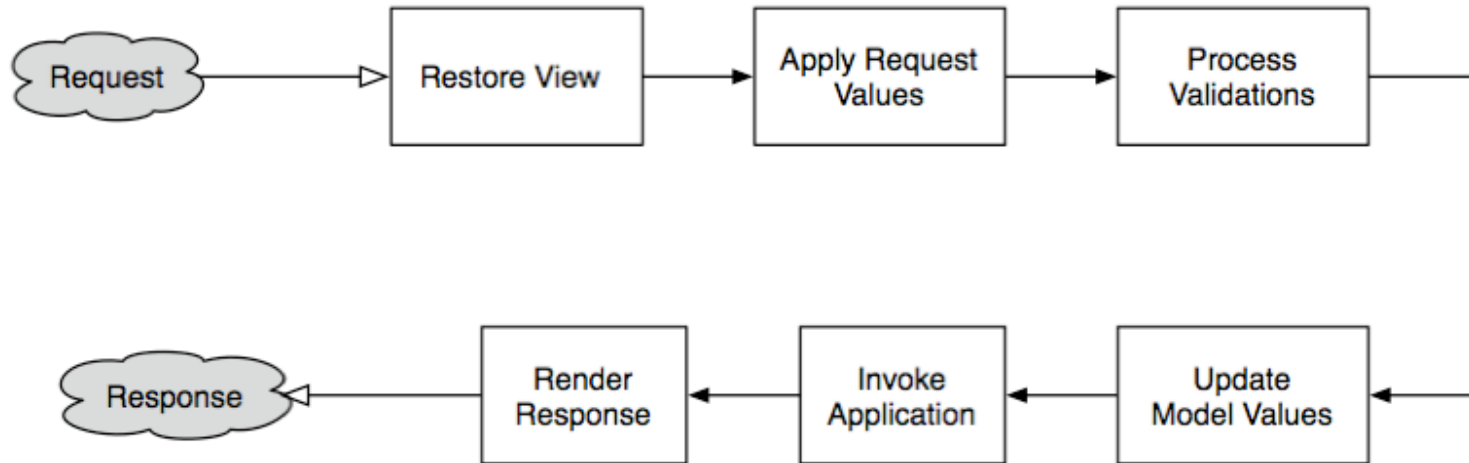


This session

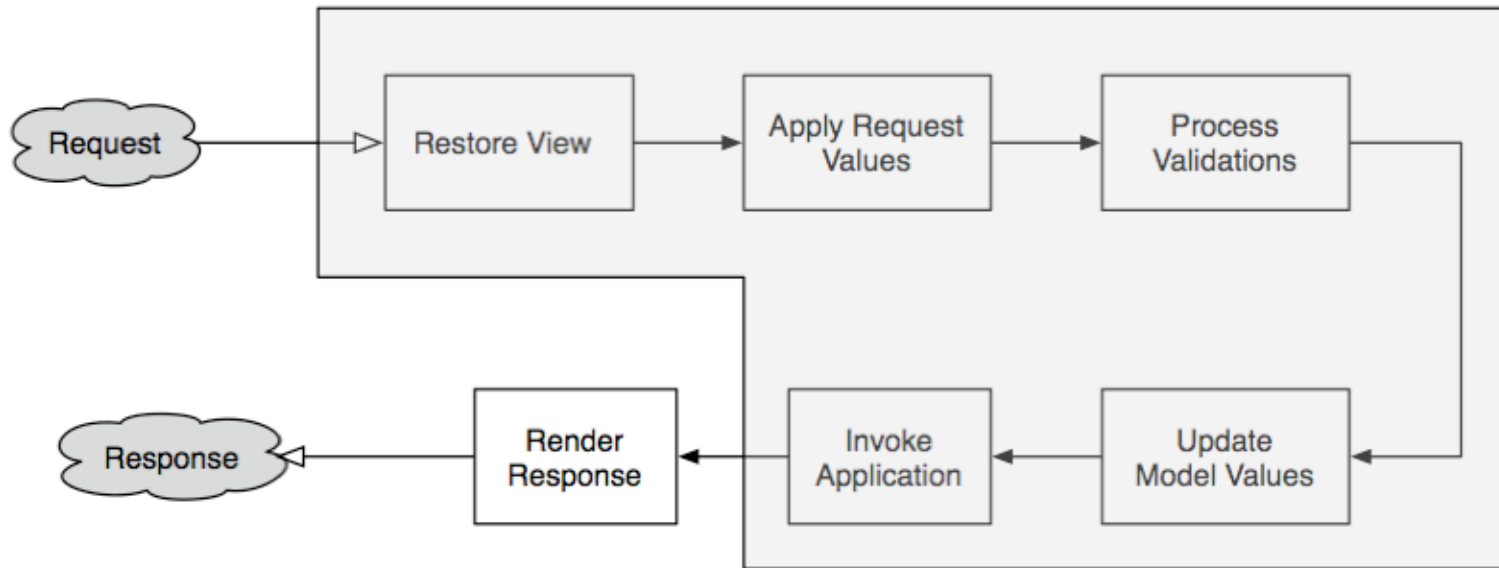
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- Ajax components



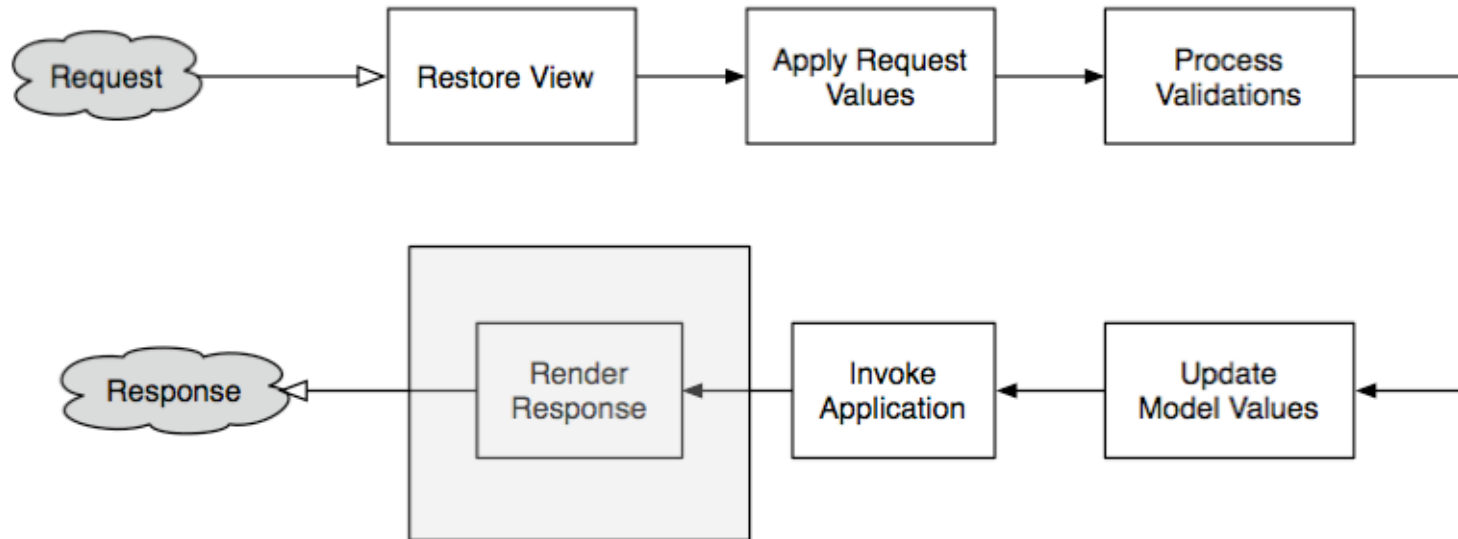
The JSF lifecycle



execute



render



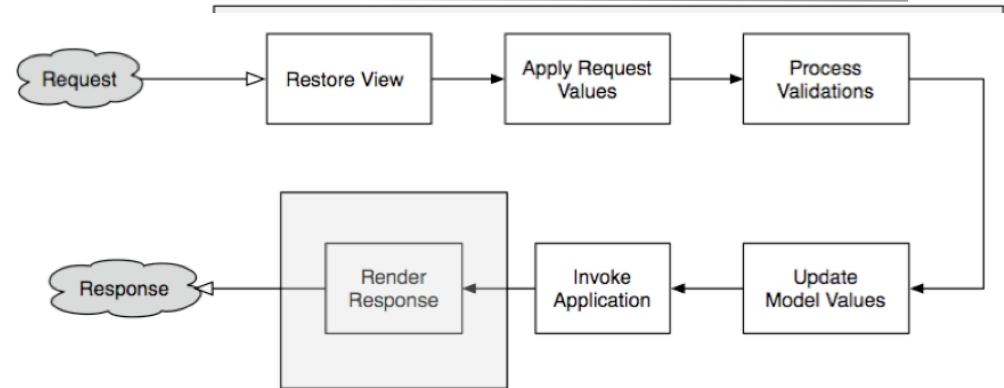
Using <f:ajax>

Please log in

Name

Password

Ryan

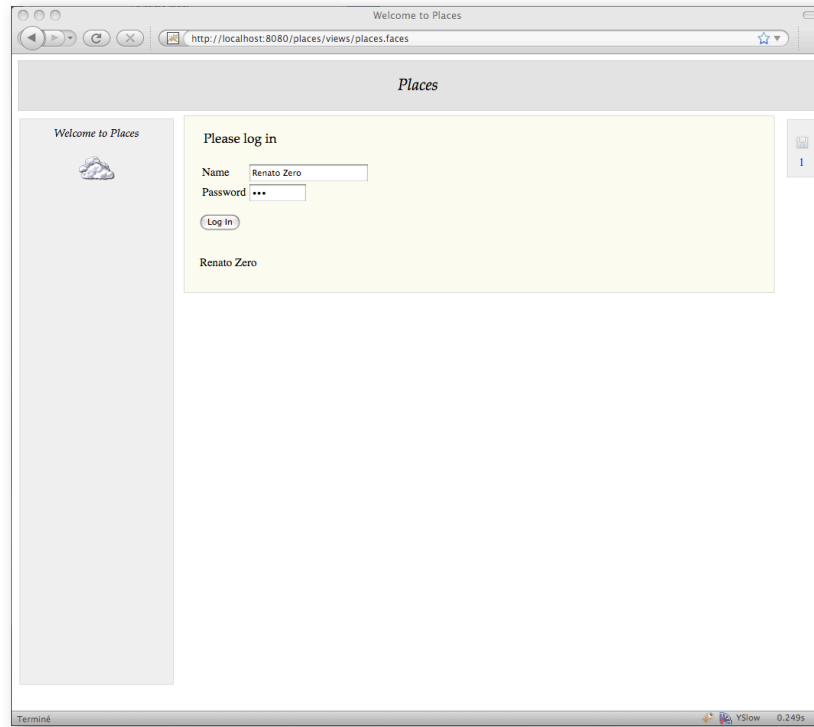


```
<h:inputText id="name" value="#{user.name}">
  <f:ajax event="keyup" execute="@this" render="echo"/>
</h:inputText>
```

...

```
<h:outputText id="echo" value="#{user.name}"/>
```

Demonstration



This session

- Composite components
- Ajax with JSF 2
- [Ajax validation](#)
- Ajax progress bar
- Ajax components



Ajax validation

Please log in

Name Name cannot contain underscores

Password

markup

Please log in

Name Name cannot contain underscores

Password

```
<h:inputText value="#{user.name}"  
  valueChangeListener="#{user.validateName}">
```

```
<f:ajax event="blur" render="nameError"/>
```

```
</h:inputText>
```

```
<h:outputText id="nameError"  
  value="#{user.nameError}"  
  style="color: red"/>
```

validator

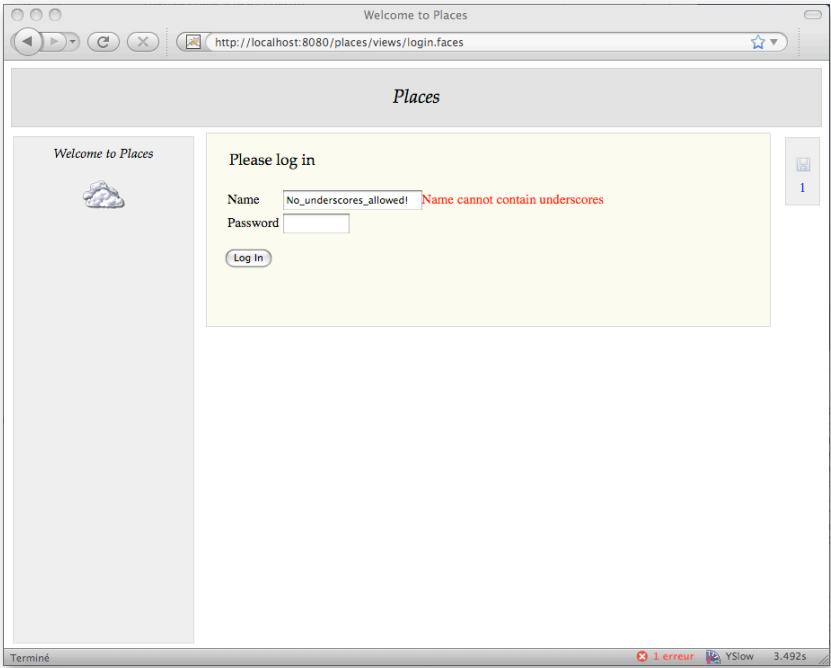
```
public class User {
    private String nameError;

    public void setNameError(String error) {nameError = error;}
    public String getNameError() {nameError;}

    public void validateName(ValueChangeEvent e) {
        UIInput nameInput = (UIInput)e.getComponent();

        // validate nameInput's value, and store error msg in nameError
    }
}
```

Demonstration

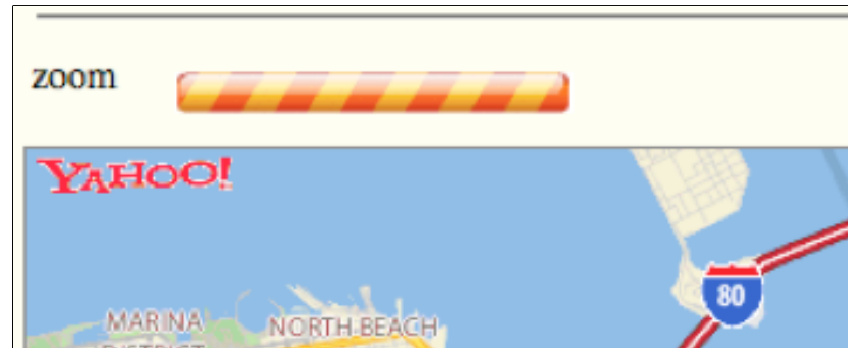


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- [Ajax progress bar](#)
- Ajax components



Ajax progress bar



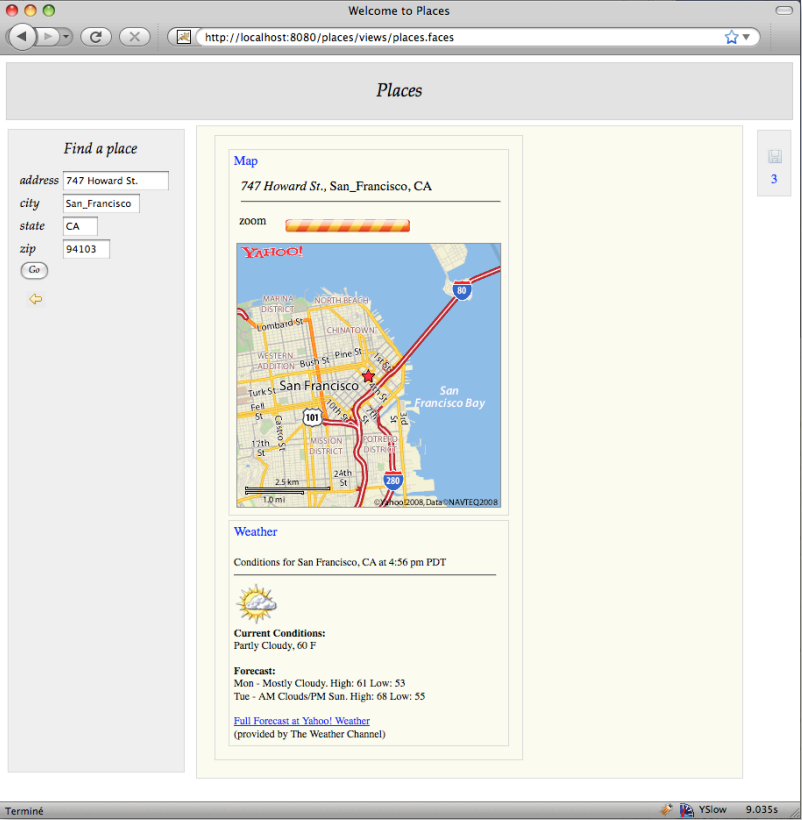
setting the event handler

```
<h:selectOneMenu id="menu"  
    value="#{place.zoomIndex}">  
  
    <f:ajax render="image" onevent="zoomChanging"/>  
    ...  
</h:selectOneMenu>
```

the event handler (JavaScript)

```
function zoomChanging(data) {  
  ...  
  
  if (data.status == "begin") {  
    // hide menu and show progress bar  
  }  
  else if (data.status == "success") {  
    // hide progress bar and show menu  
  }  
}
```

Demonstration

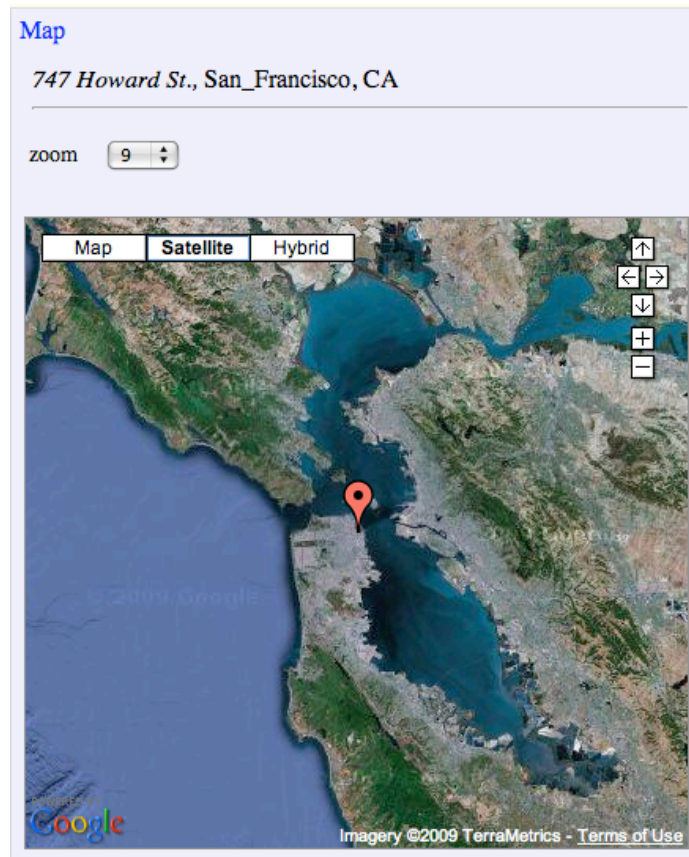


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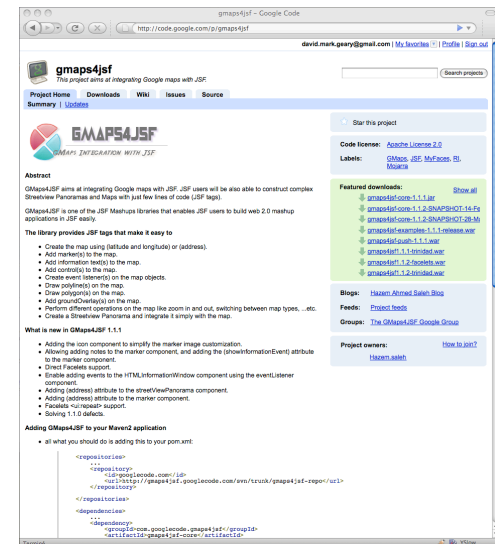


Google maps

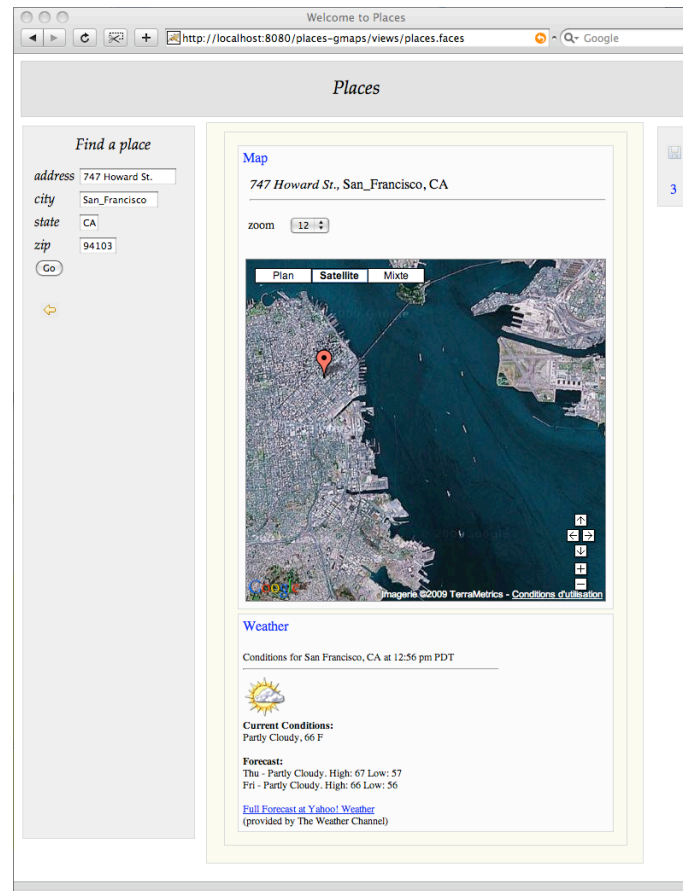


gmaps4jsf

- Blog: jroller.com/HazemBlog
- Download: code.google.com/p/gmaps4jsf
- Documentation: <http://code.google.com/p/gmaps4jsf/wiki/TagLibraryDocumentation>



plug in the component



markup

```
<m:map id="placeMap" width="420px" height="400px"
      address="{location.address}"
      zoom="{location.zoomIndex}" ...>

  <m:mapControl id="smallMapCtrl" name="GSmallMapControl"
    position="G_ANCHOR_BOTTOM_RIGHT"/>

  <m:mapControl id="smallMapTypeCtrl" name="GMapTypeControl"/>

  <m:marker id="placeMapMarker"/>

</m:map>
```

Demonstration

Welcome to Places

http://localhost:8080/places-gmaps/views/places.faces

Places

Find a place

address 747 Howard St.
city San Francisco
state CA
zip 94103
Go

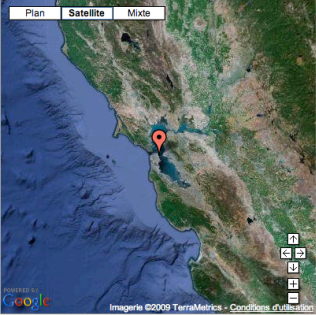
Map

747 Howard St., San Francisco, CA

zoom 1


747 Howard St.

Plan Satellite Mixte



Weather

Conditions for San Francisco, CA at 7:56 pm PDT

 **Current Conditions:**
Partly Cloudy, 56 F

Forecast:
Wed - Mostly Clear, High: 67 Low: 52
Thu - Sunny, High: 69 Low: 56

[Full Forecast at Yahoo! Weather](#)
(provided by The Weather Channel)

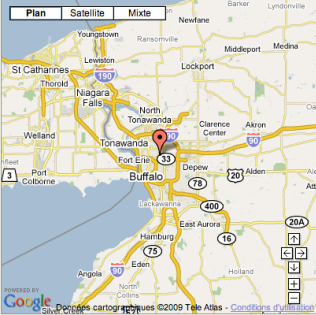
Map

86 E. Amherst St., Buffalo, NY

zoom 9


86 E. Amherst St.

Plan Satellite Mixte



Weather

Conditions for Buffalo, NY at 10:54 pm EDT

 **Current Conditions:**
Light Rain, 64 F

Forecast:
Wed - Thundershowers, High: 71 Low: 59
Thu - Scattered Thunderstorms, High: 72 Low: 57

[Full Forecast at Yahoo! Weather](#)
(provided by The Weather Channel)

The End
