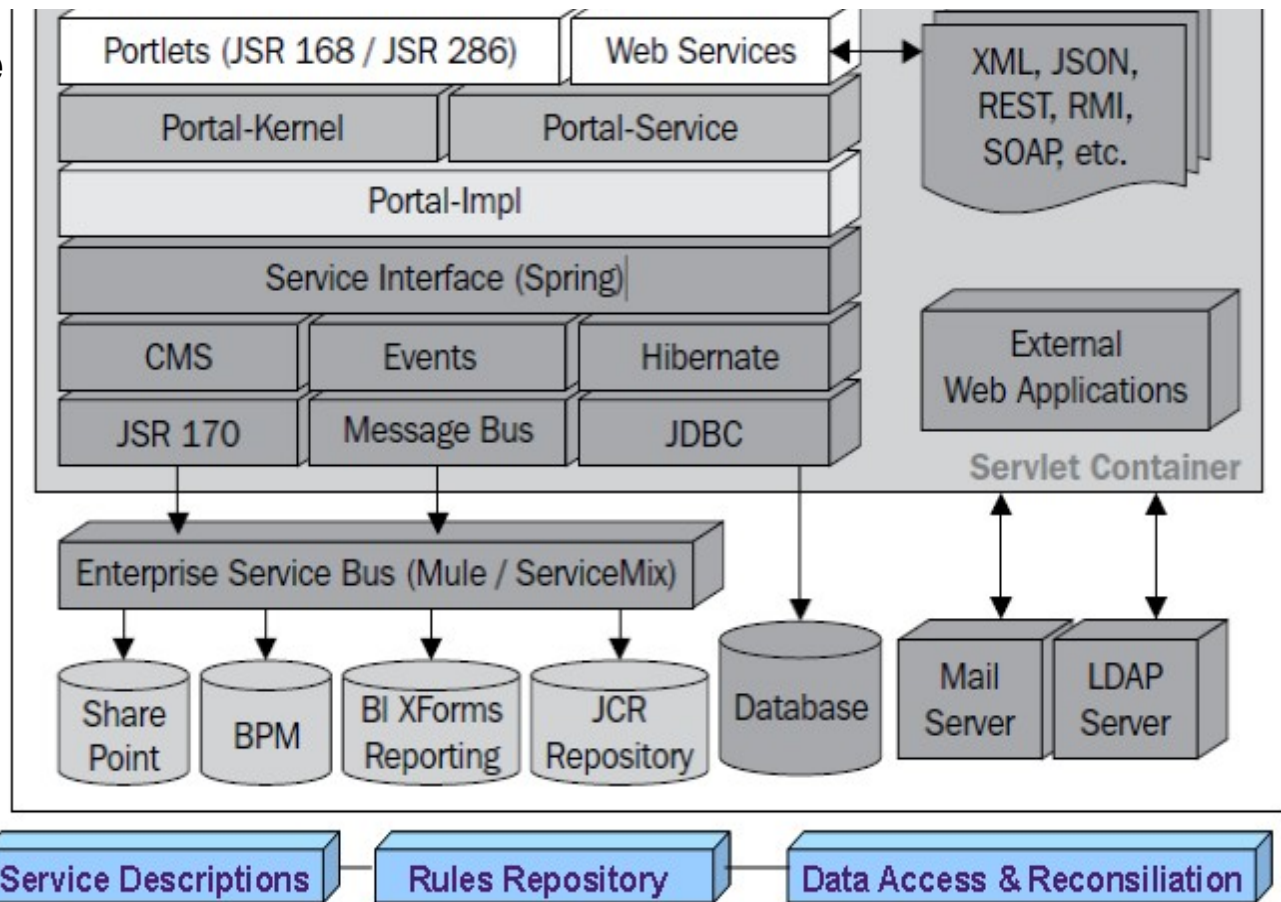# Finish Setting Up Liferay EXT Environment

- **Repetition:**

- **Liferay-Tomcat bundle**
- **MySQL DB Install**
- **Customize setenv.bat**
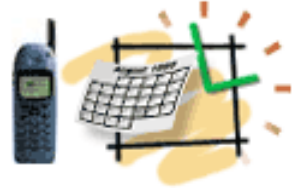- **Connect to DB**

- **Liferay EXT:**
  Ant
- **Subversion**
- **Tomcat Plugin**
- **Get Portal Source**
- **Customize Properties**

Portlets (JSR 168 / JSR 286)	Web Services	XML, JSON, REST, RMI, SOAP, etc.

Portal-Kernel	Portal-Service

Portal-Impl

Service Interface (Spring)

CMS	Events	Hibernate
JSR 170	Message Bus	JDBC

External Web Applications

Servlet Container

Enterprise Service Bus (Mule / ServiceMix)

Share Point	BPM	BI XForms Reporting	JCR Repository	Database	Mail Server	LDAP Server

Service Descriptions	Rules Repository	Data Access & Reconsiliation

Complementary Semantics (DataService) Frameworks: Data, Services, Rules & Scenarios

Finishing Liferay EXT:

- **Customize EXT Properties and Build EXT**

Start customizing Liferay

Basic Components

Liferay Platform Source & Library

Liferay-Tomcat Bundle

Tomcat 6 Application Server
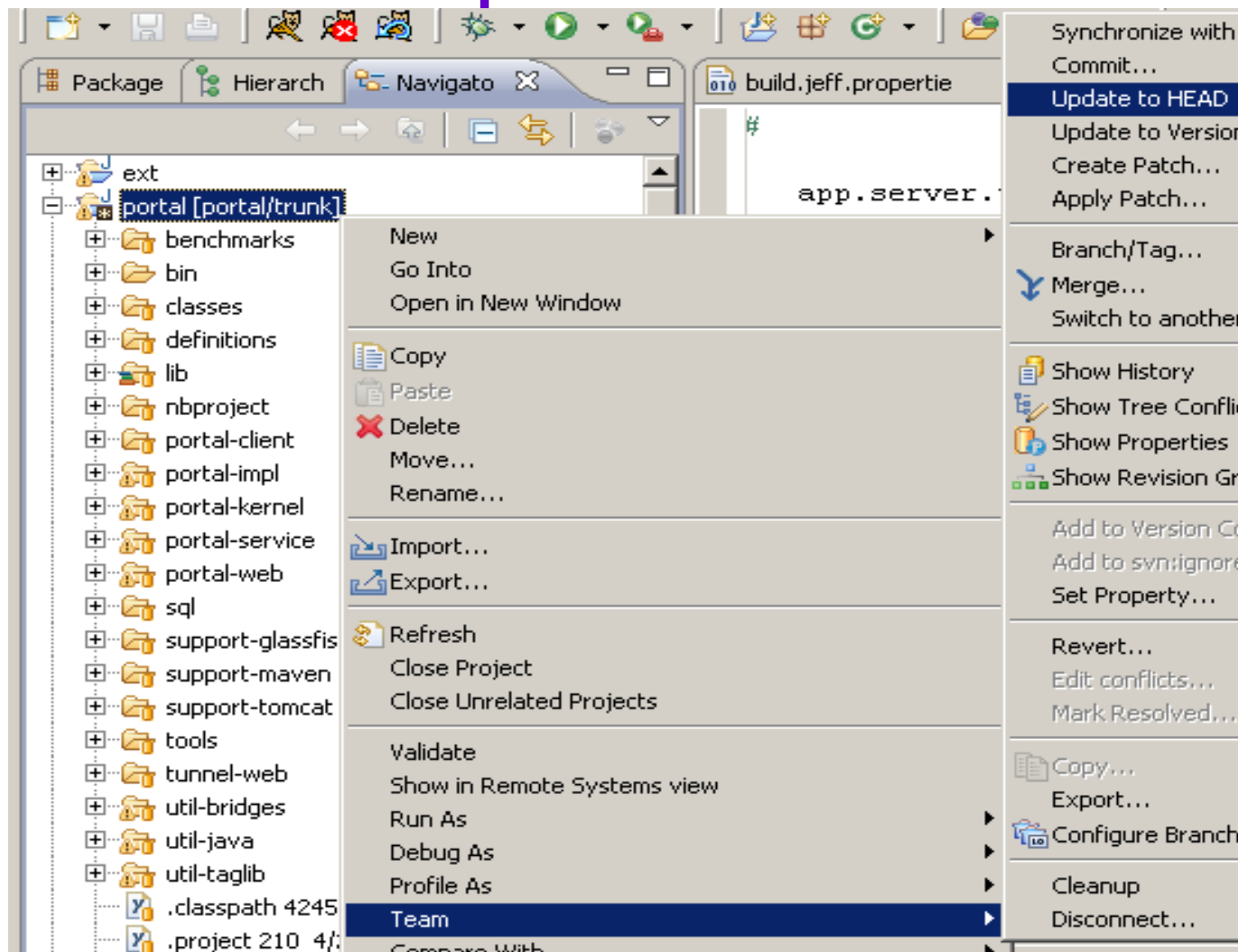
Development Environment: Eclipse & Ant

MySQL DB
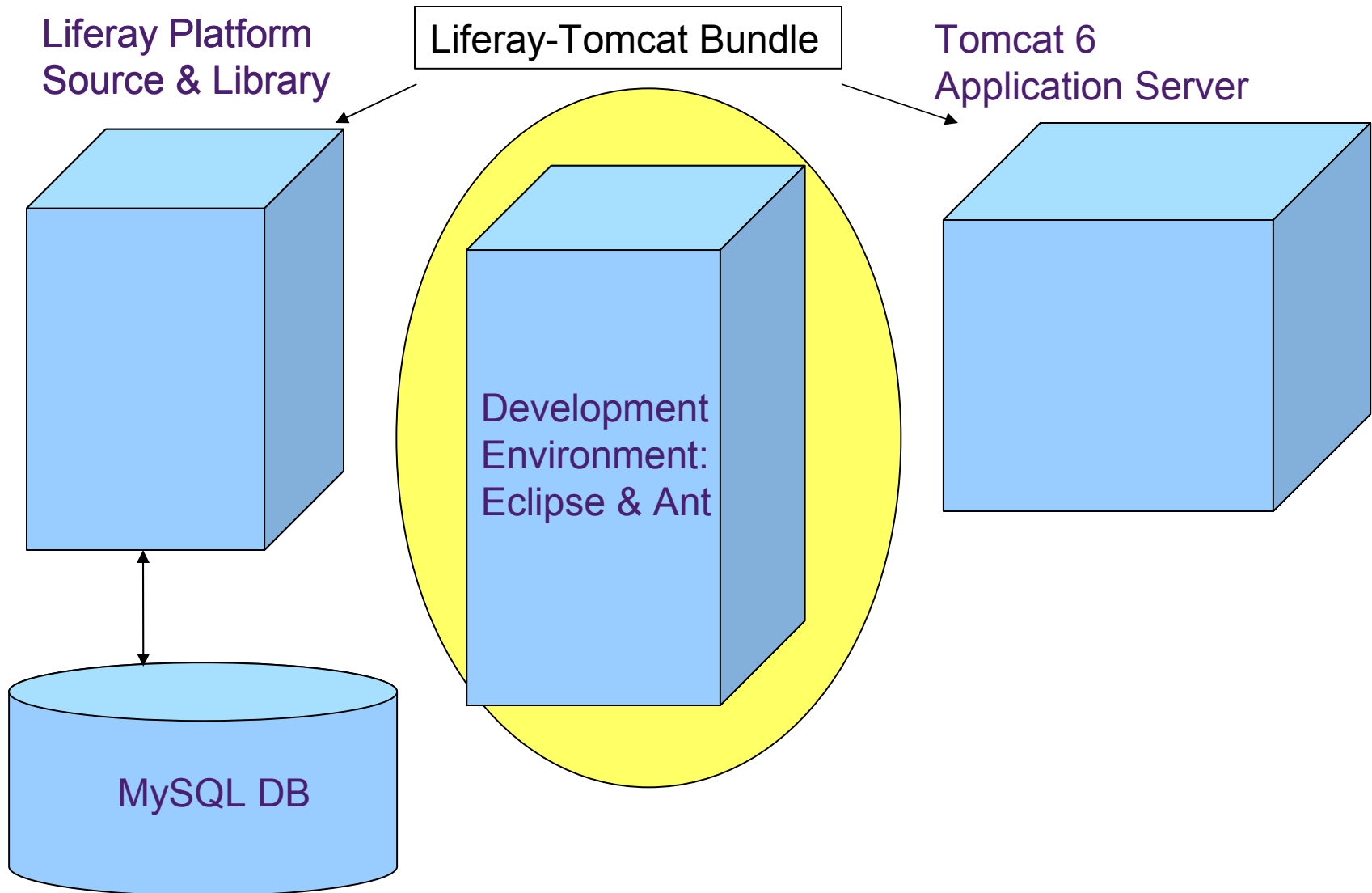
Use SVN to Update the Source

Right-click on
the Java project

portal,

select

Team - Update to HEAD

Check the PATH in System Variables
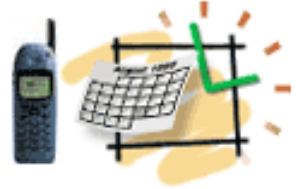

Go to **Control Panel – System – Advanced – Environment Variables** and
Make sure that the PATH to your JDK/bin is included in the
System Environment Variables
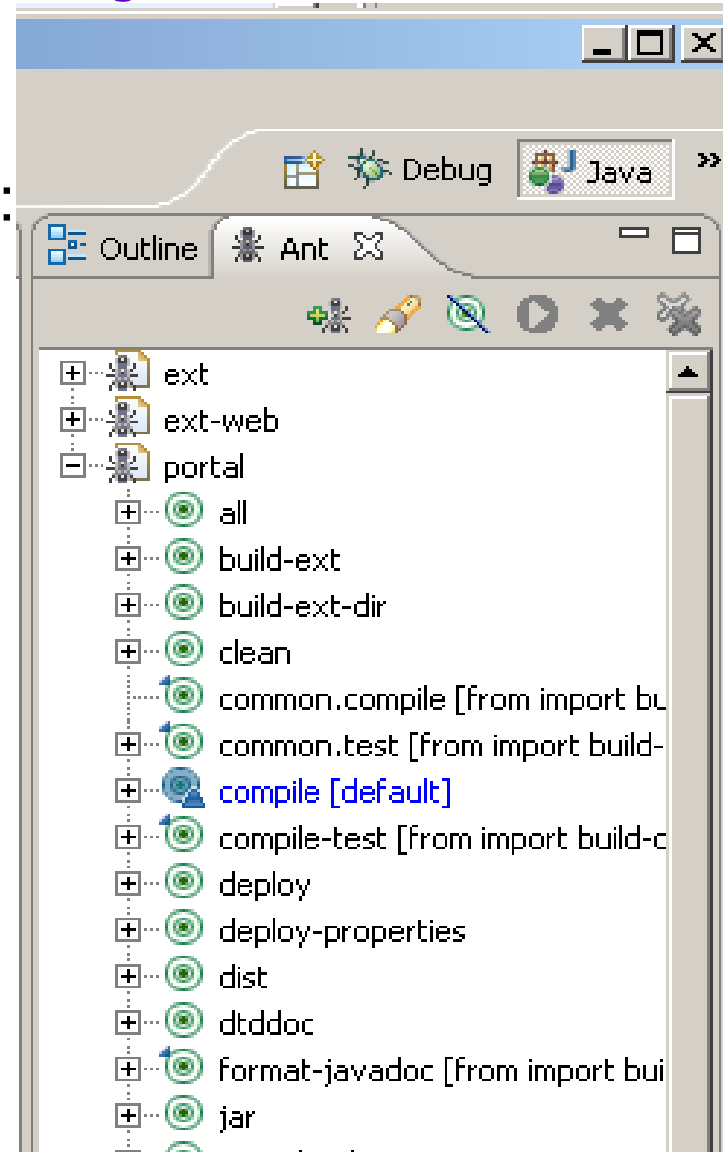
Build the Java Project EXT

1. Open the **Ant** view in the Eclipse IDE:
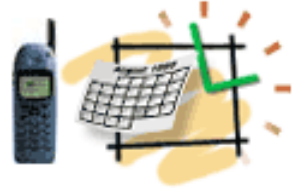 **- Window - Show View – Ant**

Drag the build.xml file under the **/portal**
to the **Ant** view

Double-click on the target **_clean_**
in the **Ant** view.

2. Double-click on the target **_start_**

3. Double-click on the target **_build-ext_**
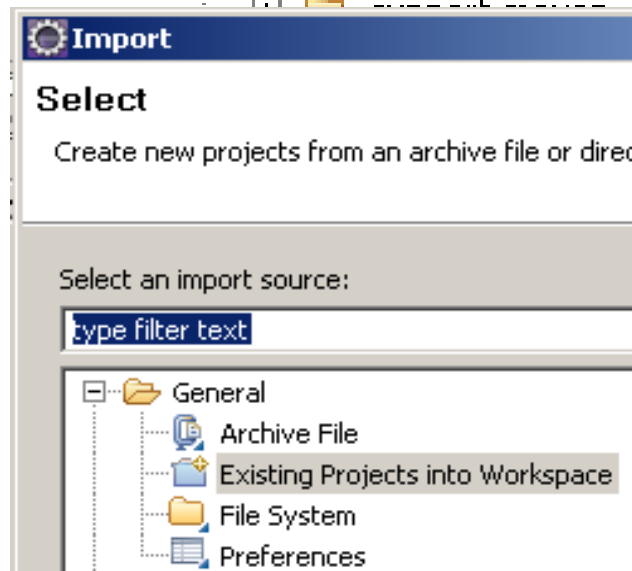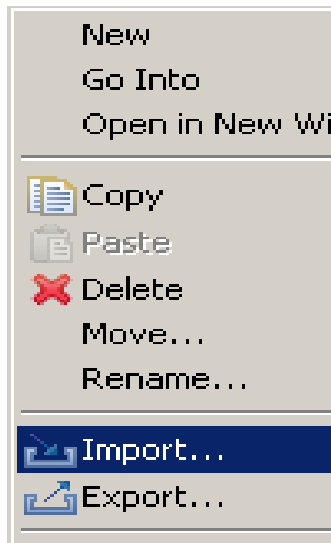
Import EXT Source

1. Right-click on the **Navigator** view and select **Import...**

2. Select an import source: **General - Existing Projects into Workspace**

3. The root directory: **c:/liferay/workspace/ext**

4. Select ext (c:/liferay/workspace/ext).

5. Click on the **Finish** button.

```
⊞ ⚠ ext
⊟ 🔒 portal [portal/trunk]
    ⊞ 📁 benchmarks
    ⊞ 📂 bin
    ⊞ 📁 classes
    ⊞ 📁 definitions
    ⊞ 📁 lib
    ⊞ 📁 nbproject
    ⊞ 📁 portal-client
    ⊞ ⚠ portal-impl
    ⊞ ⚠ portal-kernel
    ⊞ ⚠ portal-service
    ⊞ ⚠ portal-web
    ⊞ 📁 sql
    ⊞ 📁 support-glassfish
```

```
New
Go Into
Open in New Wi...

📋 Copy
📋 Paste
❌ Delete
Move...
Rename...

📥 Import...
📤 Export...
```

Import

Select

Create new projects from an archive file or direc...

Select an import source:

type filter text

```
⊟ 📂 General
    📄 Archive File
    📁 Existing Projects into Workspace
    📁 File System
    📄 Preferences
```

Set portal-ext.properties
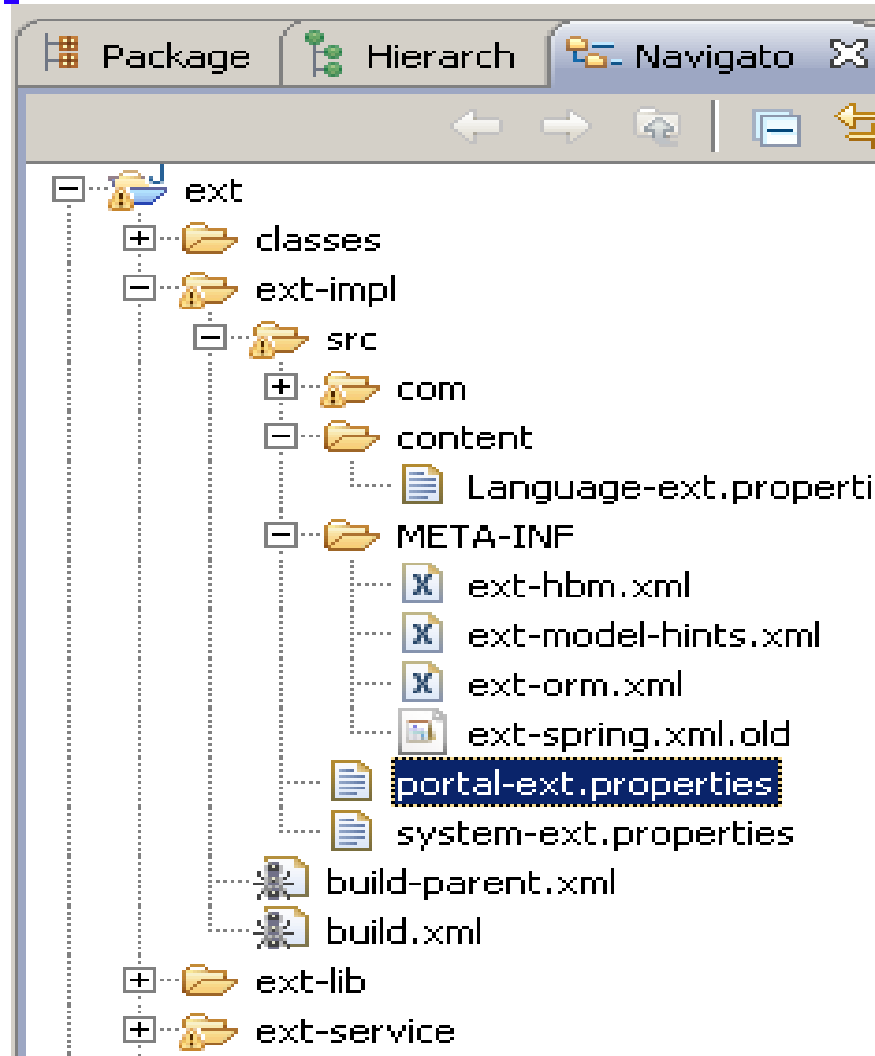
```
#### MySQL
jdbc.default.driverClassName=com.mysql.jdbc.Driver
jdbc.default.url=jdbc:mysql://localhost/lportal?
useUnicode=true&characterEncoding=UTF-
8&useFastDateParsing=false

jdbc.default.username=root
jdbc.default.password=train
```

Customize EXT Property Files

1. Copy the following files:

build.${user.name}.properties

app.server.${user.name}.properties)

from the **/portal** project to the **/ext** project

2. In the /ext project, open the file:

build.${user.name}.properties

At the bottom, add the line:

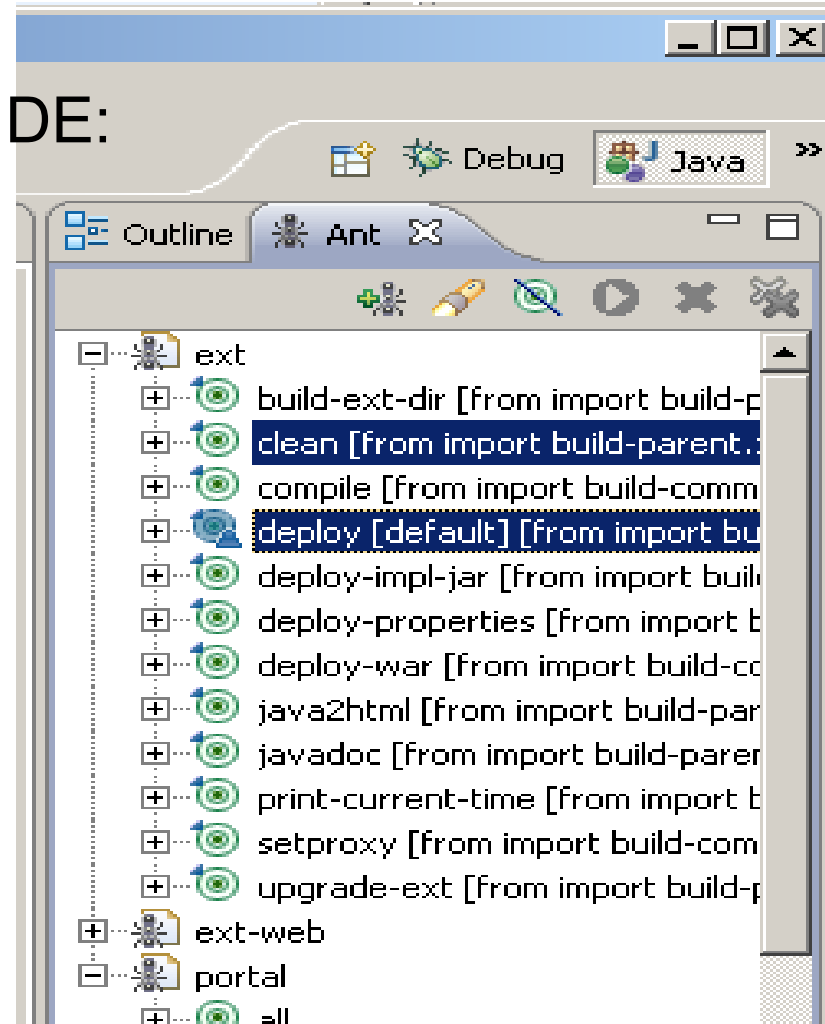**lp.ext.dir=c:/liferay/workspace/ext**

Clean and Deploy EXT project

1. Open the **Ant** view in the Eclipse IDE:
 - Window - Show View – Ant

Drag the build.xml file under the **/ext**
to the **Ant** view

2. Double-click on the target **_clean_**
in the **Ant** view.

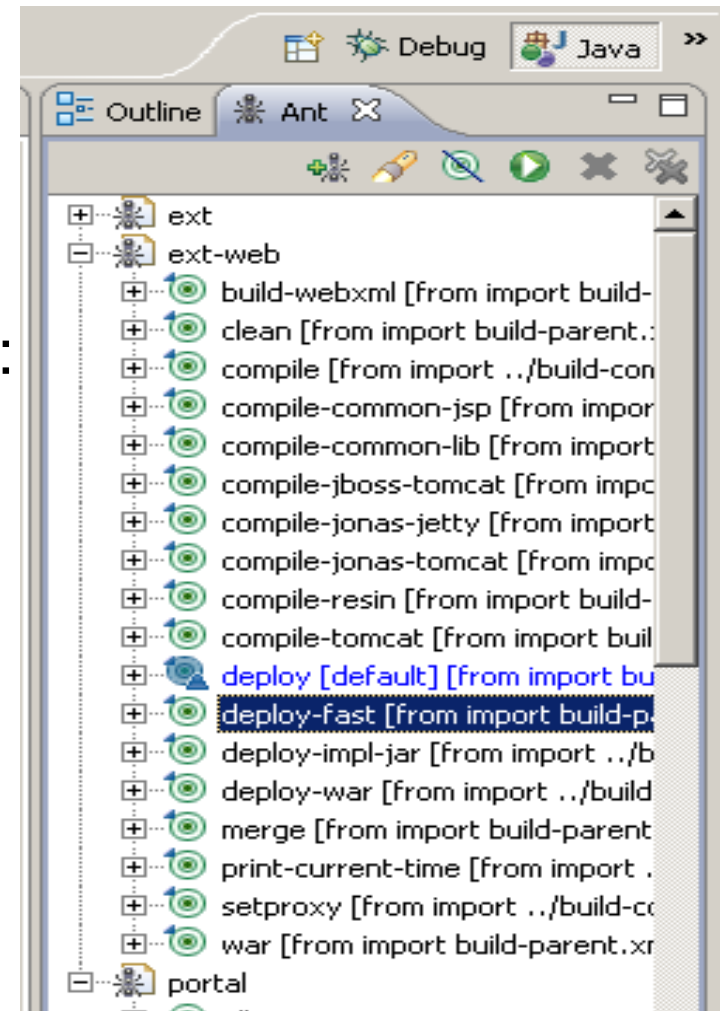3. Double-click on the target **_deploy_**

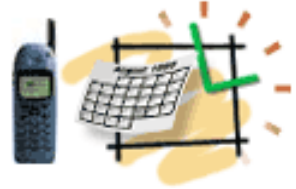# Fast Deploy of Web Changes in the EXT project

For changes in the ***ext/ext-web***
For example, jsp, css, or images
There is the **deploy-fast** method

1. Open the **Ant** view in the Eclipse IDE:
 - Window - Show View – Ant

Drag the build.xml file under
the **/ext/ext-web**
to the **Ant** view

2. Double-click on the ***deploy-fast***

EXT Environment

```
ext
  ├─ classes
  ├─ ext-impl
  ├─ ext-lib
  ├─ ext-service
  ├─ ext-web
  ├─ lib
  ├─ modules
  ├─ output
  ├─ sql
  ├─ tools
  ├─ .classpat
  ├─ .project
  └─ app.server.jeff.properties
```


Custom Code —override→ Liferay Portal Source Code —merge→ Customized Liferay Portal —deploy→ Application Server
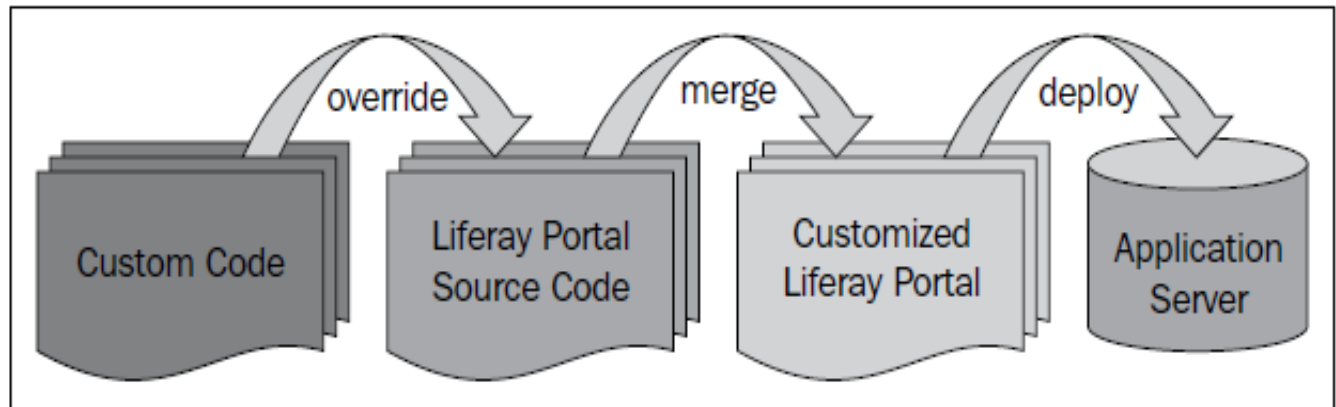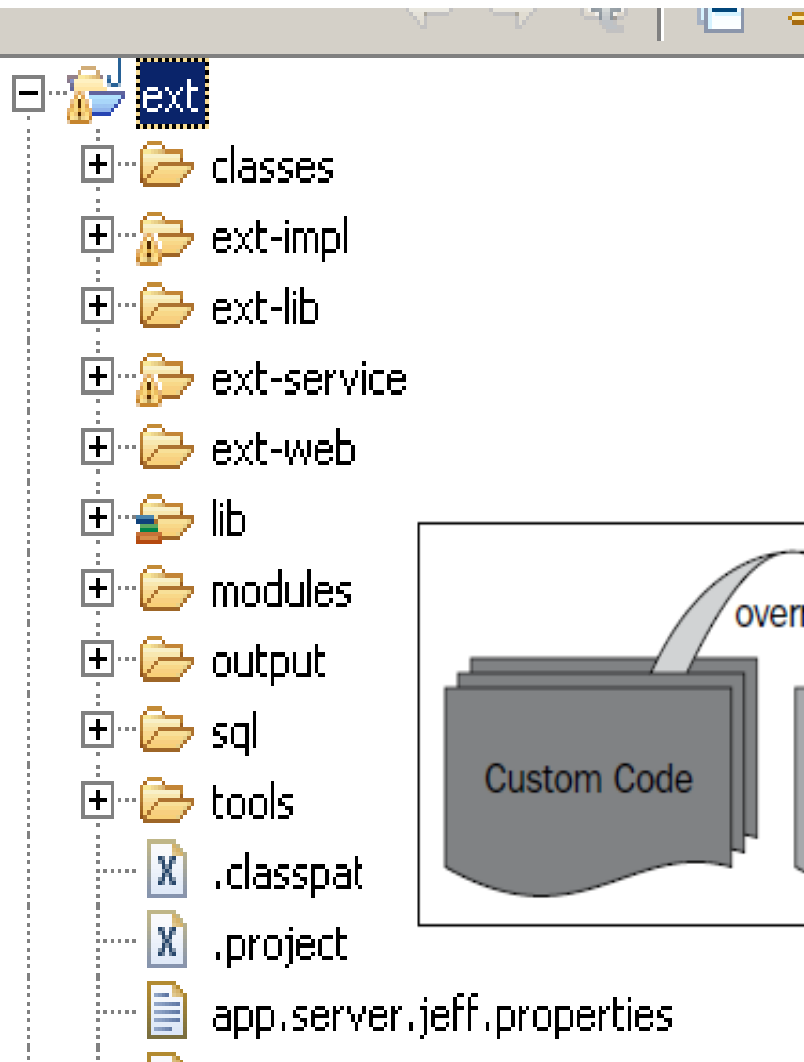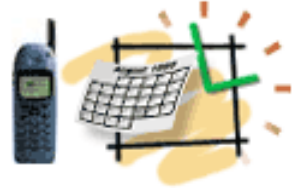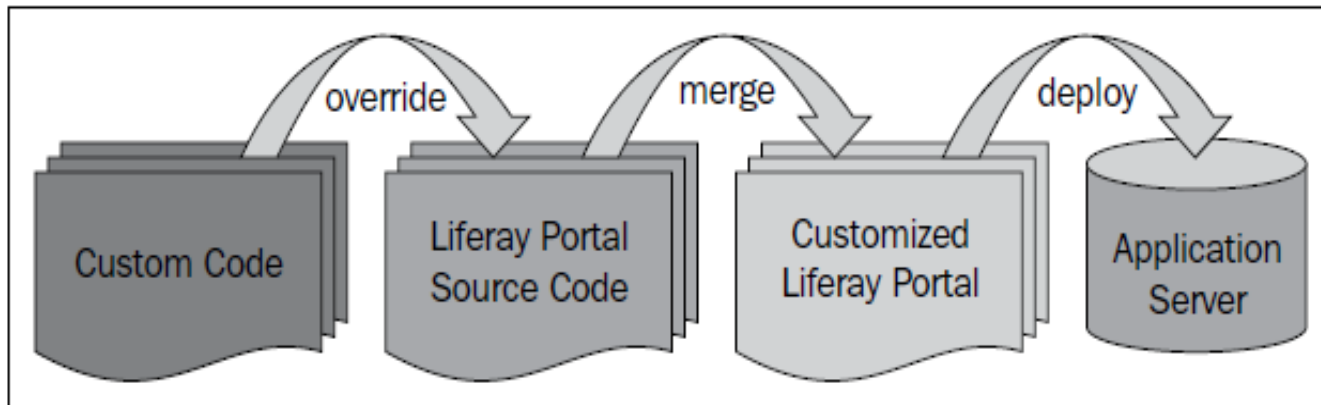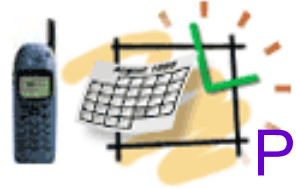
EXT Environment

What is EXT?

Ext is a wrapper for Liferay portal core source directories (that is, ext-impl/, ext-service/, and ext-web/).

EXT allows the users to develop on top of Liferay source

Check the Deployment and Start Liferay!
Portal API Library Jars are deployed in the Tomcat6/lib/ext

Java - Eclipse SDK

File   Edit   Navigate   Search   Project   Tomcat   Run   Window   Help
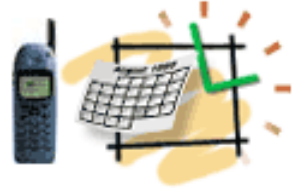
Start Liferay!

Package Expl | Hierarchy | Navigator | Outline | Ant

- CATALINA_HOME
  - bin
  - conf
  - lib
  - logs
  - temp
  - webapps
    - ROOT ← **Liferay + EXT**
      - dtd
      - errors
      - html
      - layouttpl
      - META-INF
      - wap
      - WEB-INF
      - index.jsp
    - tunnel-web
  - work

- ext-web
  - build-webxml [from import build-parent.xml]
  - clean [from import build-parent.xml]
  - compile [from import ../build-common.xml [from import build-parent.xml]]
  - compile-common-jsp [from import build-parent.xml]
  - compile-common-lib [from import build-parent.xml]
  - compile-jboss-tomcat [from import build-parent.xml]
  - compile-jonas-jetty [from import build-parent.xml]
  - compile-jonas-tomcat [from import build-parent.xml]
  - compile-resin [from import build-parent.xml]
  - compile-tomcat [from import build-parent.xml]
  - deploy [default] [from import build-parent.xml]
  - deploy-fast [from import build-parent.xml]
  - deploy-impl-jar [from import ../build-common.xml [from import build-parent.xml]]
  - deploy-war [from import ../build-common.xml [from import build-parent.xml]]
  - merge [from import build-parent.xml]
  - print-current-time [from import ../build-common.xml [from import build-parent.xml]]
  - setproxy [from import ../build-common.xml [from import build-parent.xml]]
  - war [from import build-parent.xml]

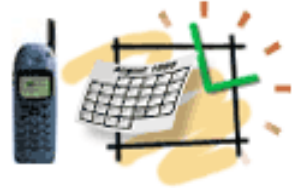SVN Reposit

Play with Portal and Portlets
Recollect JSR 286
(Java Specification Request)

A Portlet is an application that presents a fragment of a portal page

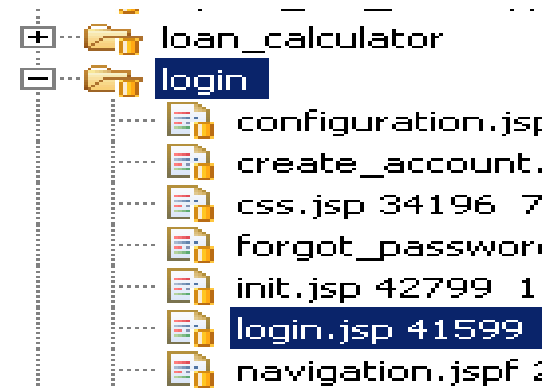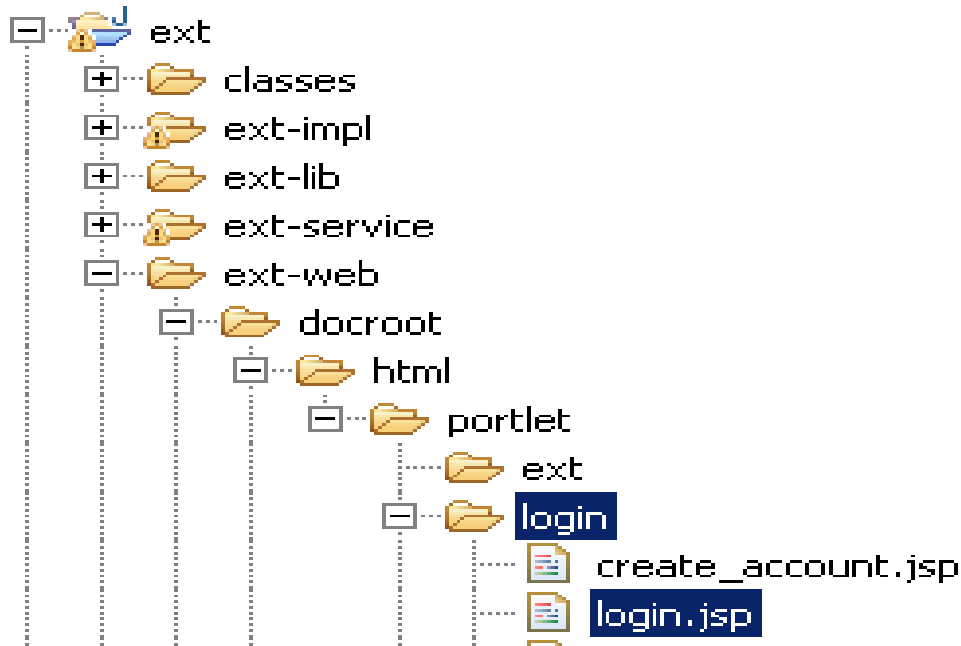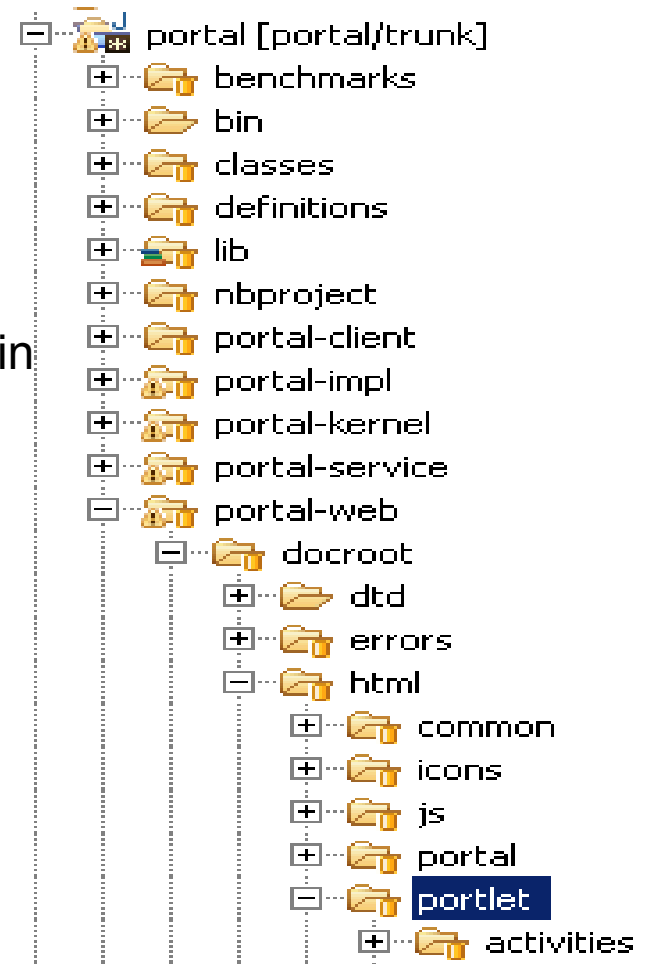A Portlet Container assembles the portlets into a portal page
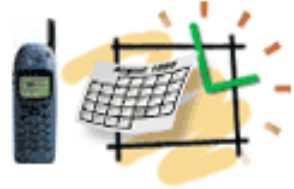
Customize Liferay

Create the folder: /ext/ext-web/docroot/html/portlet/login
Copy one file:

 /portal/portal-web/docroot/html/portlet/login/login.jsp

To

/ext/ext-web/docroot/html/portlet/login/login.jsp

Customize the Login.JSP

Double click and Open in Eclipse the file:

 /ext/ext-web/docroot/portlet/login/login.jsp

Look at the Login screen, we'd like to change the login label to

"Enter your login information"

Find this line in the login.jsp source in Eclipse:

```
<aui:input label="<%= loginLabel %>" name="login" type="text" value="<%= login %>" />
```


Replace this line with:

```
<aui:input label="enter-your-login-information" name="login" type="text"
value="<%= login %>" />
```


Deploy-Fast, Start Liferay and check your updated Login screen: we are almost there :-)

Customize International Messages

Open in Eclipse the file:
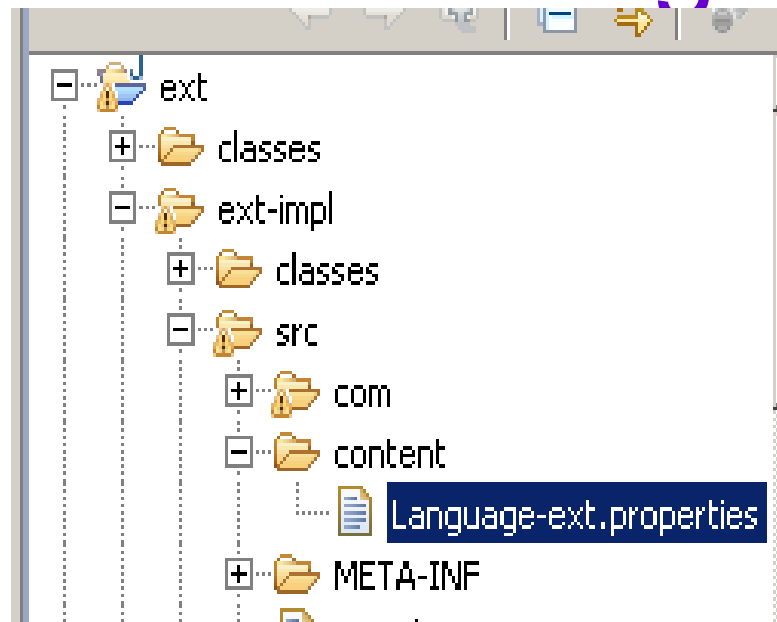
/ext/ext-impl/src/content/Language-ext.properties

Add to the file this line:

enter-your-login-information=Enter your login information

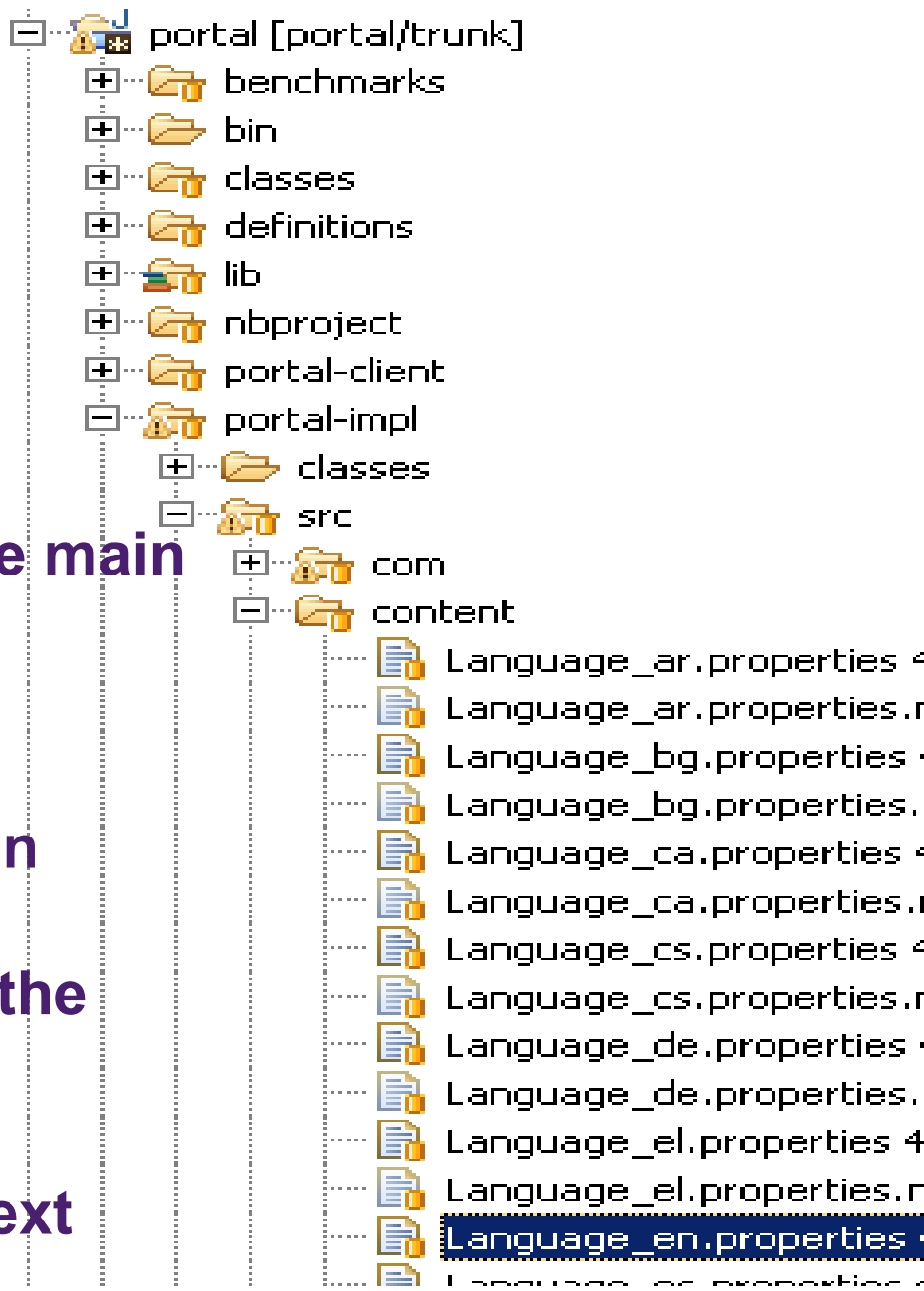**Deploy-Fast, Start Liferay and check your updated Login**

Customize International Messages

In the future *always check* the main file of portal messages

/portal/portal-impl/src/content/Language_en
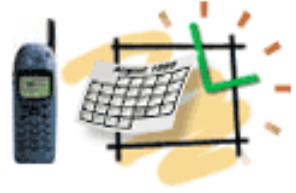
before you add a new line to the

 /ext/ext-impl//src/content/Language_ext

portal [portal/trunk]
- benchmarks
- bin
- classes
- definitions
- lib
- nbproject
- portal-client
- portal-impl
  - classes
  - src
    - com
    - content
      - Language_ar.properties
      - Language_ar.properties.r
      - Language_bg.properties
      - Language_bg.properties.
      - Language_ca.properties
      - Language_ca.properties.
      - Language_cs.properties
      - Language_cs.properties.r
      - Language_de.properties
      - Language_de.properties.
      - Language_el.properties 4
      - Language_el.properties.r
      - Language_en.properties
      - Language_ar.properties

Liferay Ext Setup Summary

- **What did we do first?**

- **Next?**

- **Next?**

Liferay Setup Summary

- **What we did first?**

  - **Liferay-Tomcat bundle install**

- **Next?**

- **MySQL and Tools**

- **Next?**

  - **EXT Environment**