

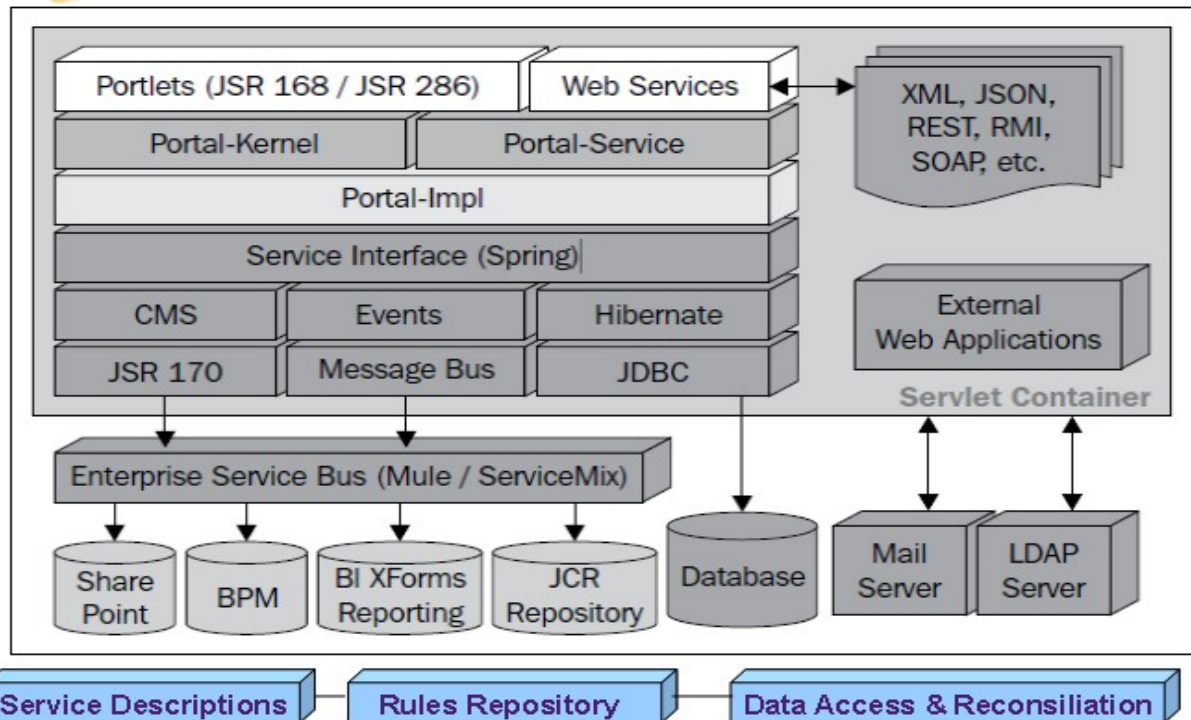
## Liferay Setup

- Repetition:
- Web Applications and Model View Controller (MVC) Design Pattern (CGI, Model 1, Model 2)

Web Applications Frameworks (Struts, Spring, Hibernate, Data Service Semantic Frameworks)

## Liferay Portal – SOA platform

- Liferay Setup:
- Liferay-Tomcat bundle
- MySQL DB Install
- EXT Environment



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



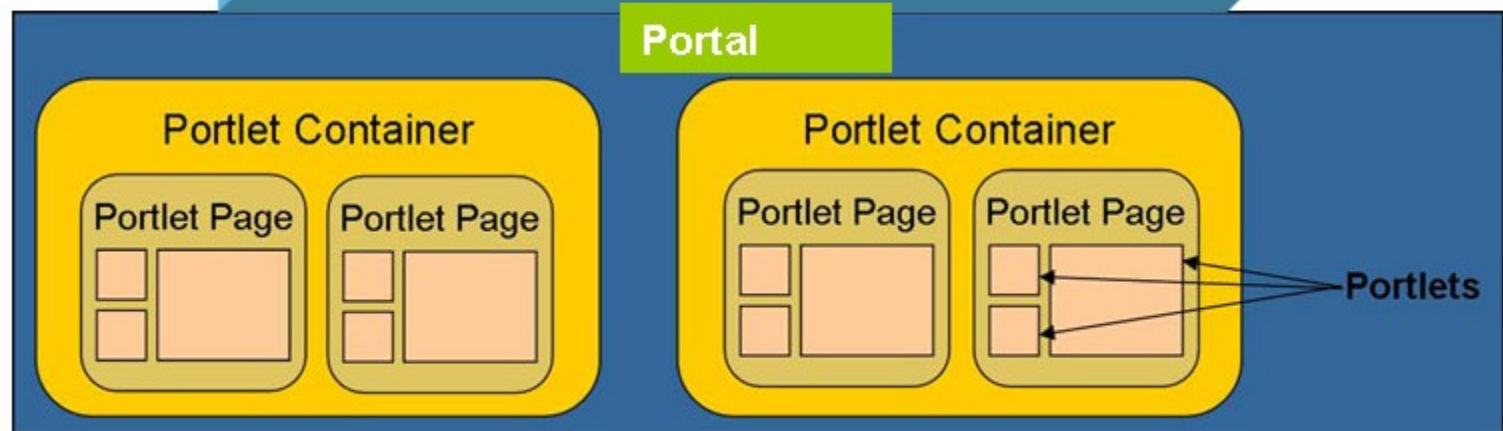
# Web Portal

User Management

Content Management

Search

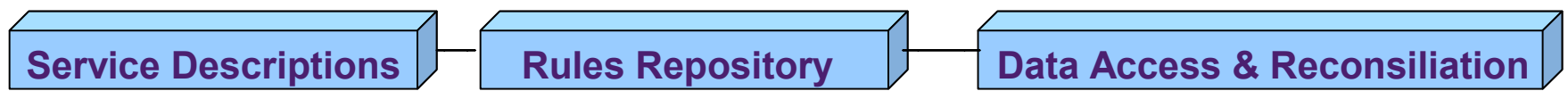
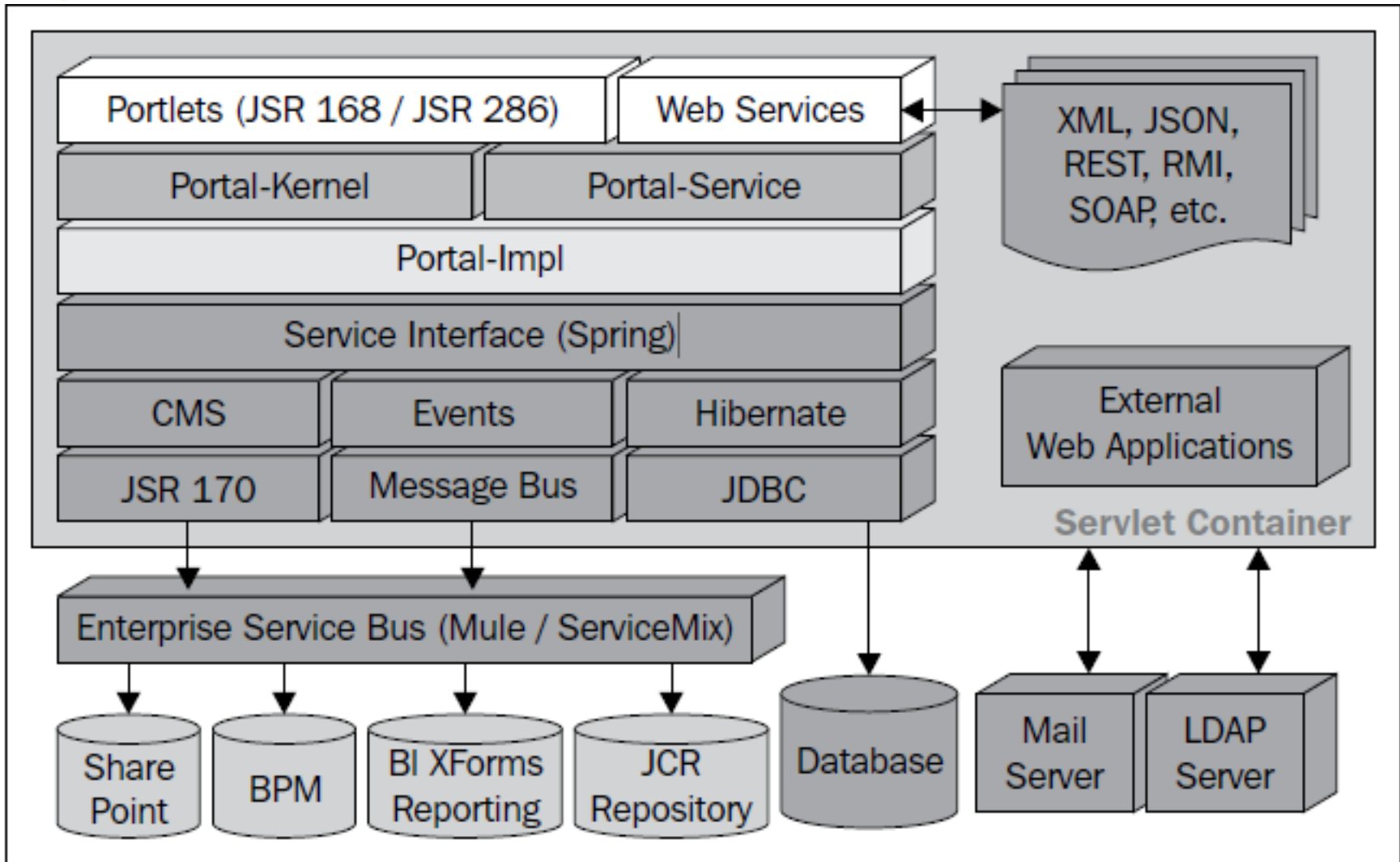
Portal and Portlet Management

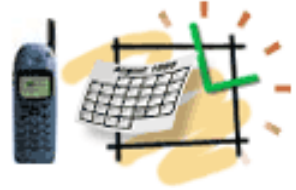


## Benefits:

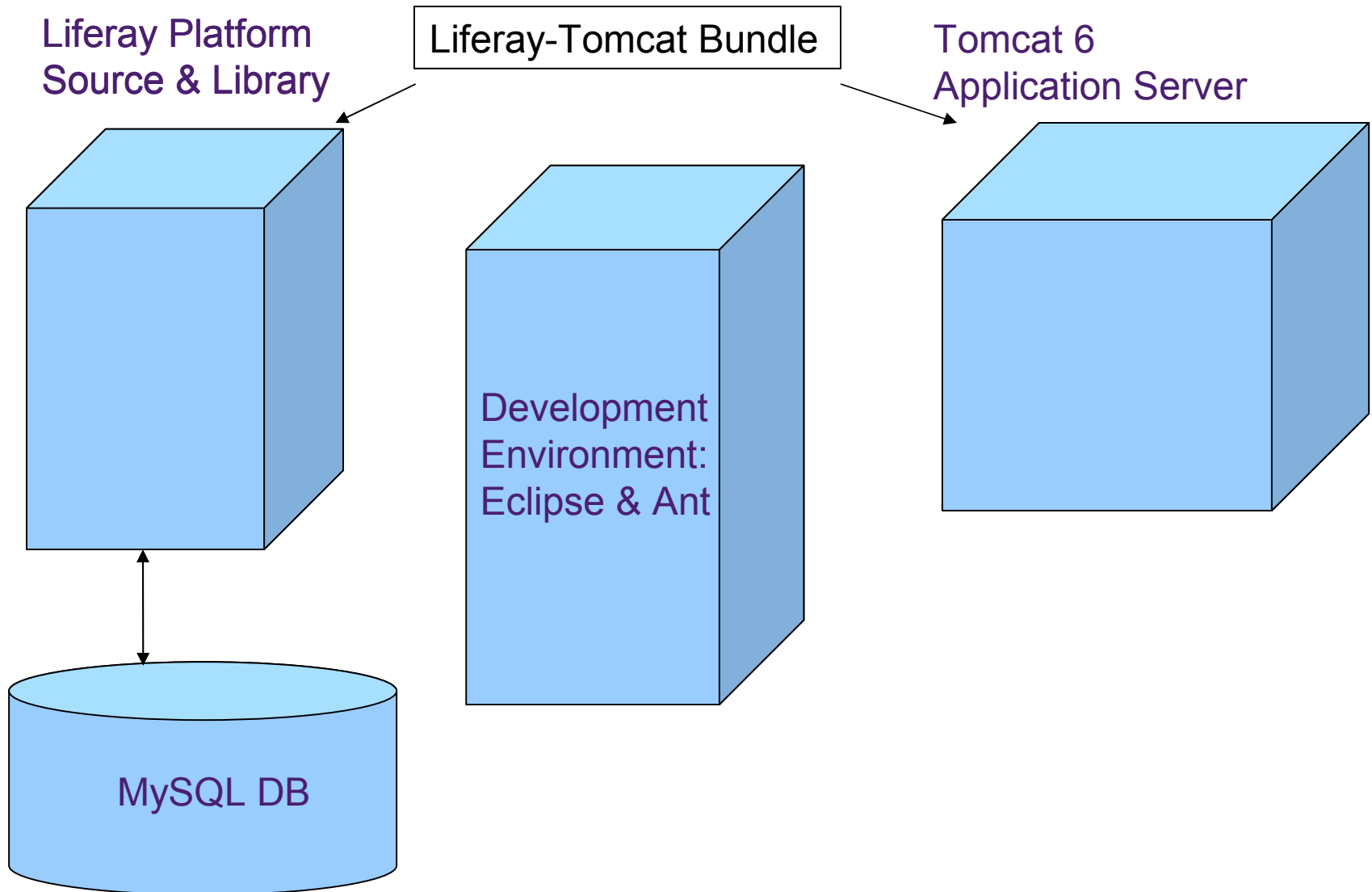
- Pre-built container and components
- The standard way to integrate new services

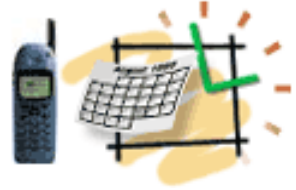
# Liferay Portal – SOA platform





# Basic Components





## Liferay-Tomcat Bundle

Download the Liferay-Tomcat bundle as a zip file:

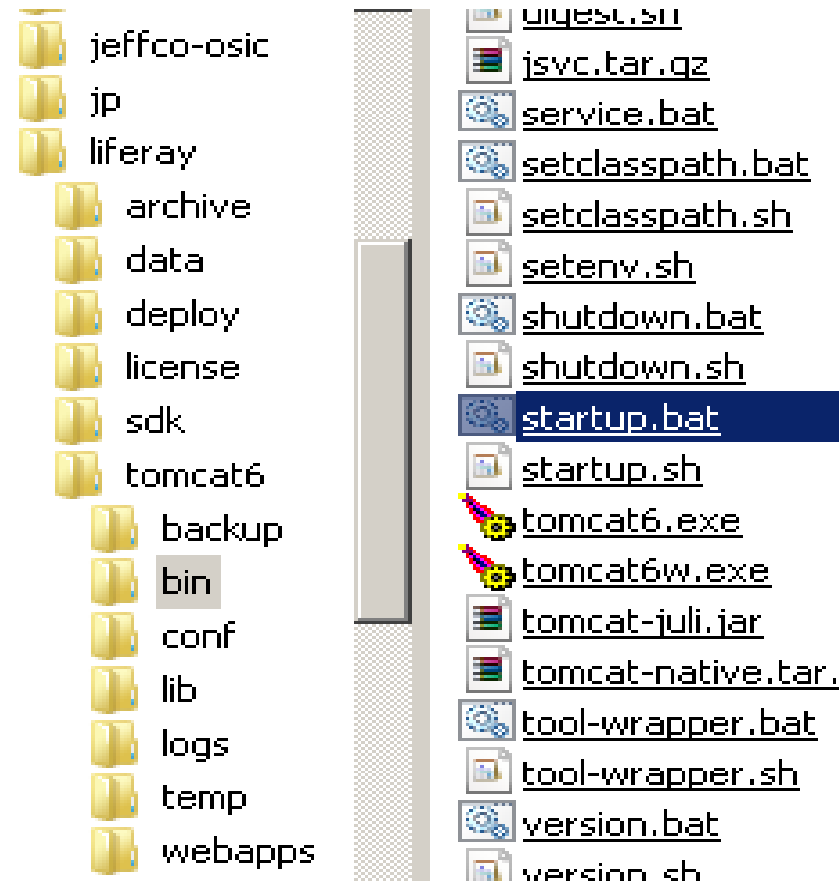
<http://10.2.147.35:8080/share/liferay-portal-tomcat-6.0-5.2.3.zip>

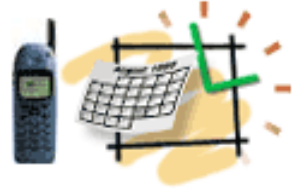
Unzip into your C: drive

Rename liferay-portal-5.2.3 to liferay

Rename tomcat-6.0.18 to tomcat6

Start liferay/tomcat6/bin/startup.bat





## Setup MySQL DB Server

### 1. Get the latest version of MySQL Community Server (Free)

<http://dev.mysql.com/downloads/>

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Important Platform Support Updates »

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MySQL Community Server

Current Release (Recommended)

**MySQL 5.1**—Generally Available (GA) release for production use





## Install MySQL DB Server

### 2. Install MySQL Server (follow installation instructions)

<http://dev.mysql.com/get/Downloads/MySQL-5.1/mysql-5.1.42-win32.msi/from/pick>

You are downloading:

`mysql-5.1.42-win32.msi`

During the install, invoke the Config and set  
Password = train

Please take the time to let us know about you.

If this is the first time you have downloaded from us, you will be sent a password to enable you to log int sites, including forums and bugs.

If you already have a MySQL.com account, save time by logging in now.

#### Returning Users

*Save time by logging in*

Email:

Password:

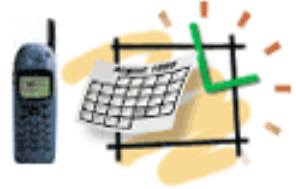
[Forgot your password?](#)

Login

#### New Users

Proceed with registration

Proceed



## Explore the database with MySQL GUI tools:

MySQL GUI Tools Overview:

<http://dev.mysql.com/downloads/gui-tools/5.0.html>

Download:

<http://dev.mysql.com/get/Downloads/MySQLGUITools/mysql-gui-tools-5.0-r17-win32.msi/from/pick#mirrors>

MySql Administrator Doc:

<http://dev.mysql.com/doc/administrator/en/index.html>

**MySQL Query Browser Doc:**

<http://dev.mysql.com/doc/query-browser/en/index.html>

MySQL Migration (from various DB to MySQL) Toolkit Doc:

<http://dev.mysql.com/doc/migration-toolkit/en/index.html>



## Customize the Liferay Setting

**Modify `setenv.bat` in the `$TOMCAT/bin` to allow your JDK to execute your code**

I noticed that some of my Java classes produced the "Unsupported version" errors. It appears that the default Liferay setting (in 5.2.3) picks up the JRE from the directory built-in the liferay installation package (JRE 5) instead of the JDK installed on your PC.

Here are the changes in settings to prevent this behavior.

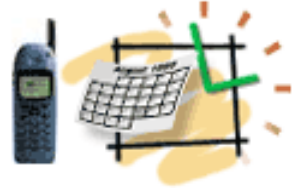
Setup **JAVA\_HOME** in the environment variables to point to the JDK directory on your machine, for example, `c:/jdk`

Setup **JRE\_HOME** in the environment variables to point to the JRE directory on your machine, for example, `c:/jdk/jre`

Open the **`setenv.bat`** file in the `$liferay/$tomcat/bin` directory and delete the settings of `JAVA_HOME` and `JRE_HOME`; delete everything till "set JAVA\_OPTS...", so this file will start with "set JAVA\_OPTS"; Replace the timezone "GMT" with "MST"

Save the **`setenv.bat`**, delete the **JRE5** from the Liferay install

Run **`$liferay/$tomcat/bin/startup.bat`** again to make sure it works!



## Let Liferay work with the DB

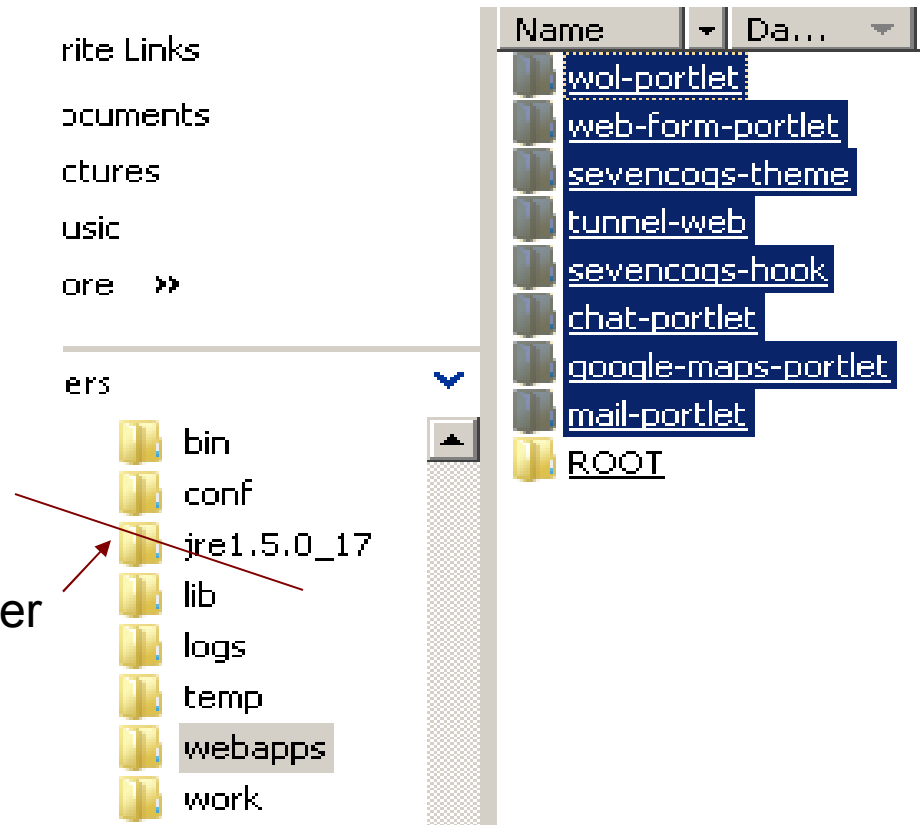
Original setup allows Liferay to use in-memory data for demo purposes

In real life you'll need to connect Liferay with the Database

Liferay can use any database but its choice is MySQL Open Source DB

To allow Liferay to use the MySQL DB:

- Create the **c:\liferay\archive** - folder
- Go to **C:\liferay\tomcat6\webapps**
- Move all the folders except the **ROOT**  
From the **webapps** folder  
Into the **c:\liferay\archive** folder
- Check again: you must delete this JRE folder  
From the c:\liferay\tomcat6





# Configure Email Communications

Open the file:

**\$liferay/\$tomcat/conf/Catalina/localhost/ROOT.xml**

Add the following entry for your email communications:

```
<Resource name="mail/MailSession" auth="Container"  
type="javax.mail.Session"  
mail.imap.host="imap.gmail.com" mail.imap.port="993"  
mail.pop.host="pop.gmail.com" mail.store.protocol="imap"  
mail.transport.protocol="smtp" mail.smtp.host="smtp.gmail.com"  
mail.smtp.port="465" mail.smtp.auth="true"  
mail.smtp.starttls.enable="true"  
mail.smtp.user="{username}" password="{password}"  
mail.smtp.socketFactory.class="javax.net.ssl.SSLSocketFactory"  
>
```



# Connect to Email and DB

Open a new text file and save the following content into the file:

```
$liferay/$tomcat/webapps/ROOT/classes/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=${username}
```

```
jdbc.default.password=${password}
```

```
##### email
```

```
mail.session.jndi.name=mail/MailSession
```



## Start DB or better Make MySQL a Service

Start the MySQL Query Browser  
(downloaded from the MySQL GUI  
Tools)

password=*train*

(Liferay will populate the “lportal”  
schema on the first start)

MySQL  
Query Browser

Connect to MySQL Server Instance

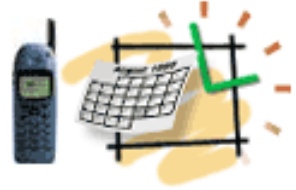
Stored Connection:

Server Host:  Port:

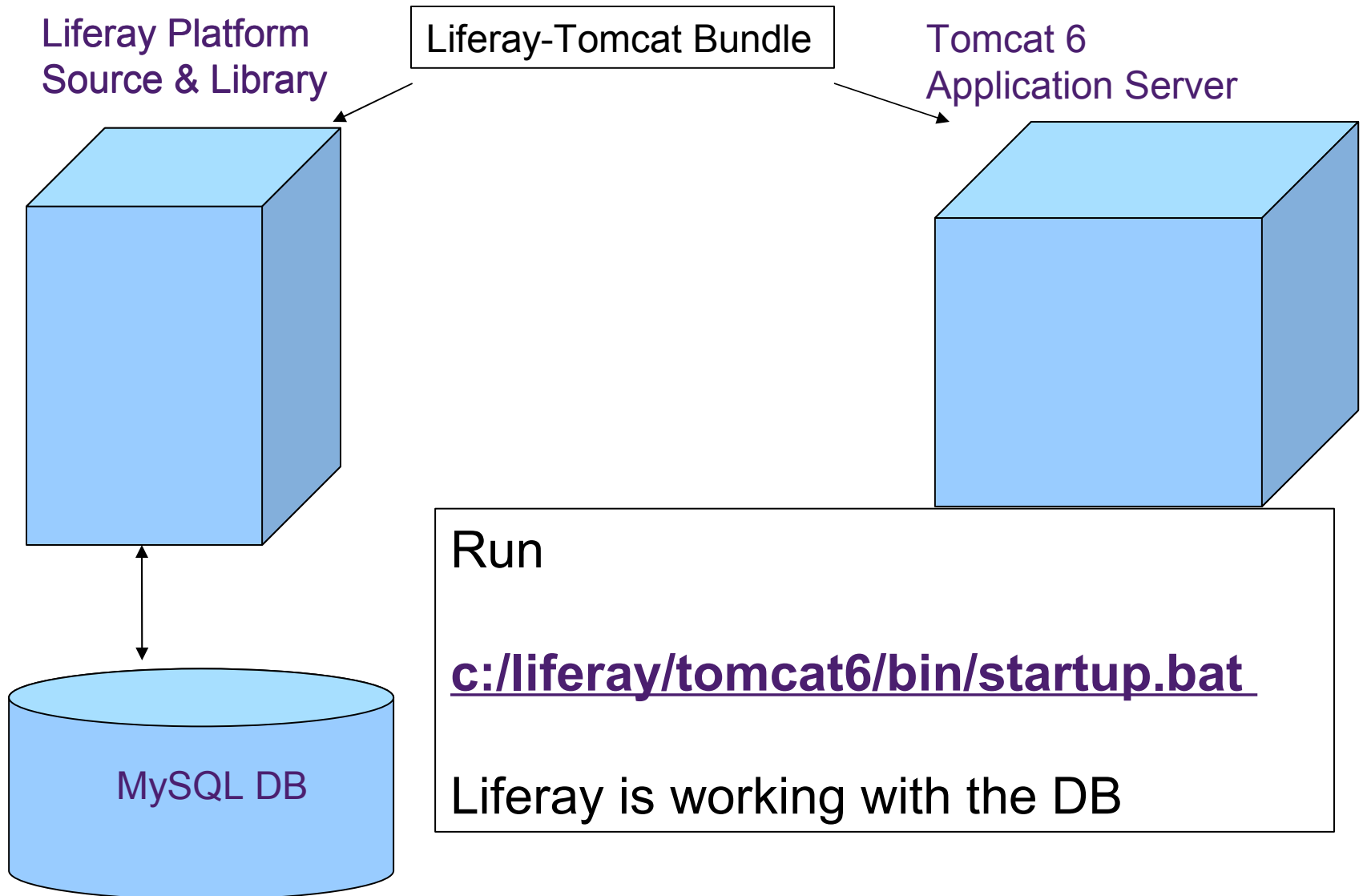
Username:

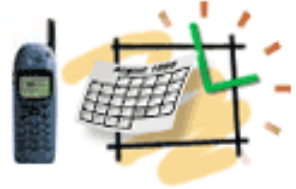
Password:

Default Schema:



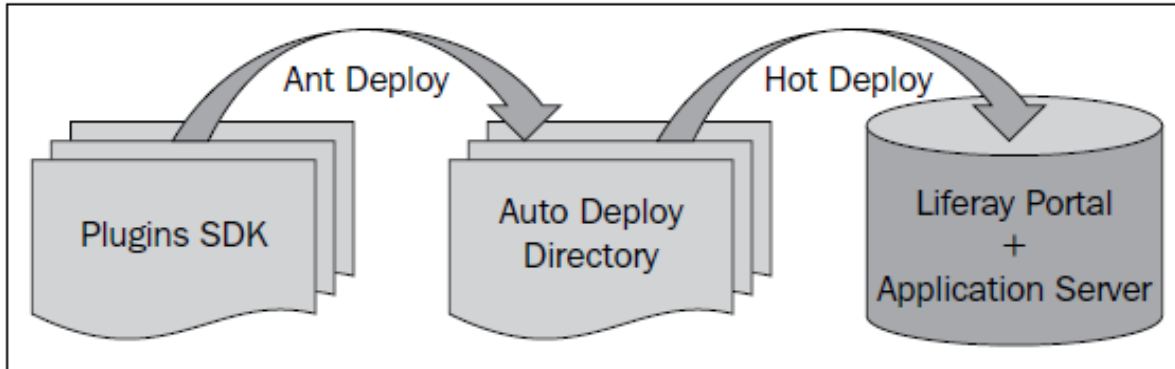
## Basic Components



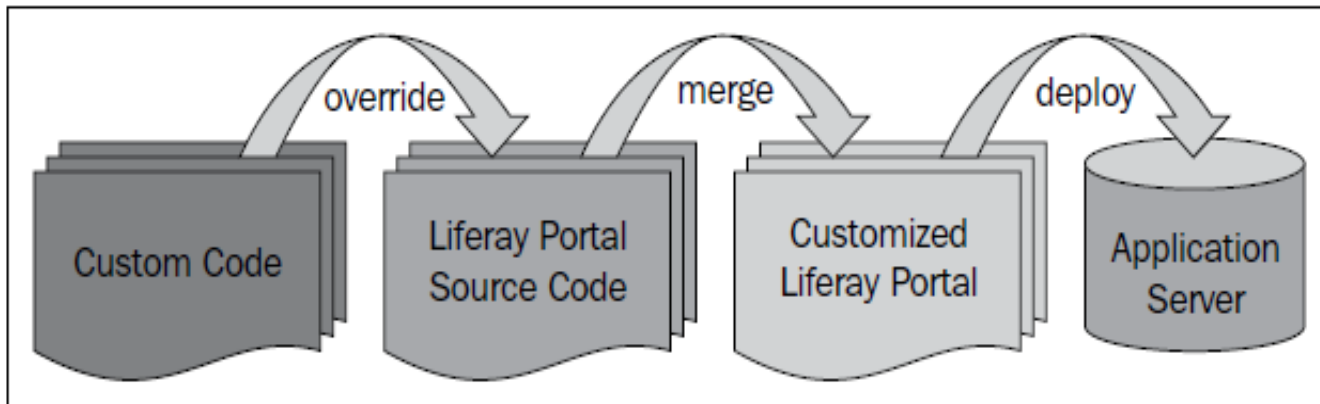


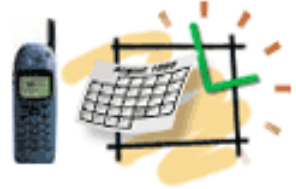
# Plugins SDK and Extension Environment

## Plugins SDK



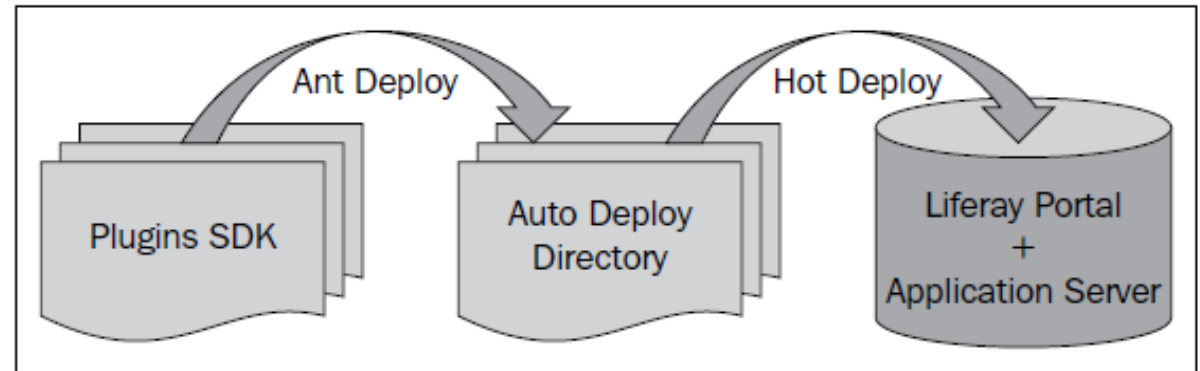
## EXT Environment

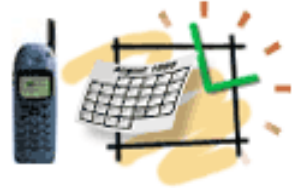




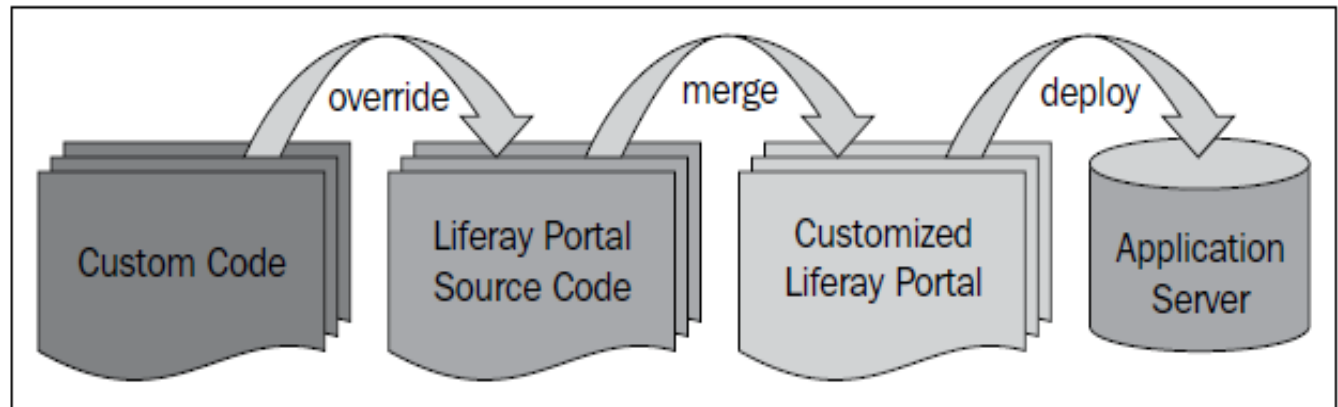
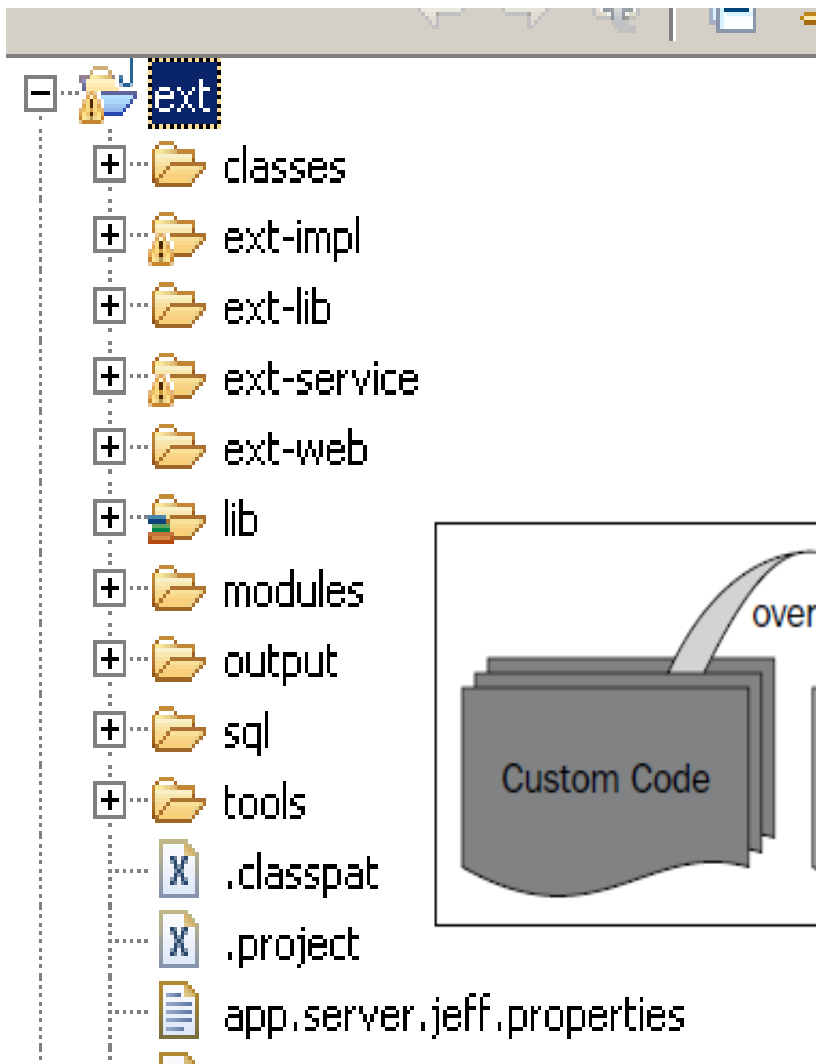
## Plugins SDK

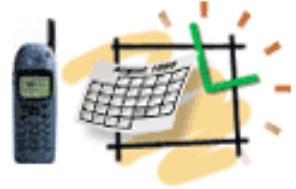
- sdk
  - clients
  - dist
  - hooks
  - + layouttp
  - lib
  - misc
  - portlets
    - + bcd-portlet
    - + dao-portlet
    - + newportlet-portlet
    - + osicdao-portlet
    - + portlet.zip
  - + themes
  - + tools





# EXT Environment





# Portal and Portlets

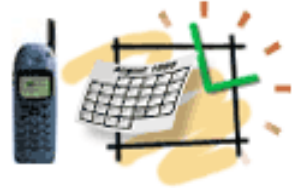
## JSR 286

(Java Specification Request)

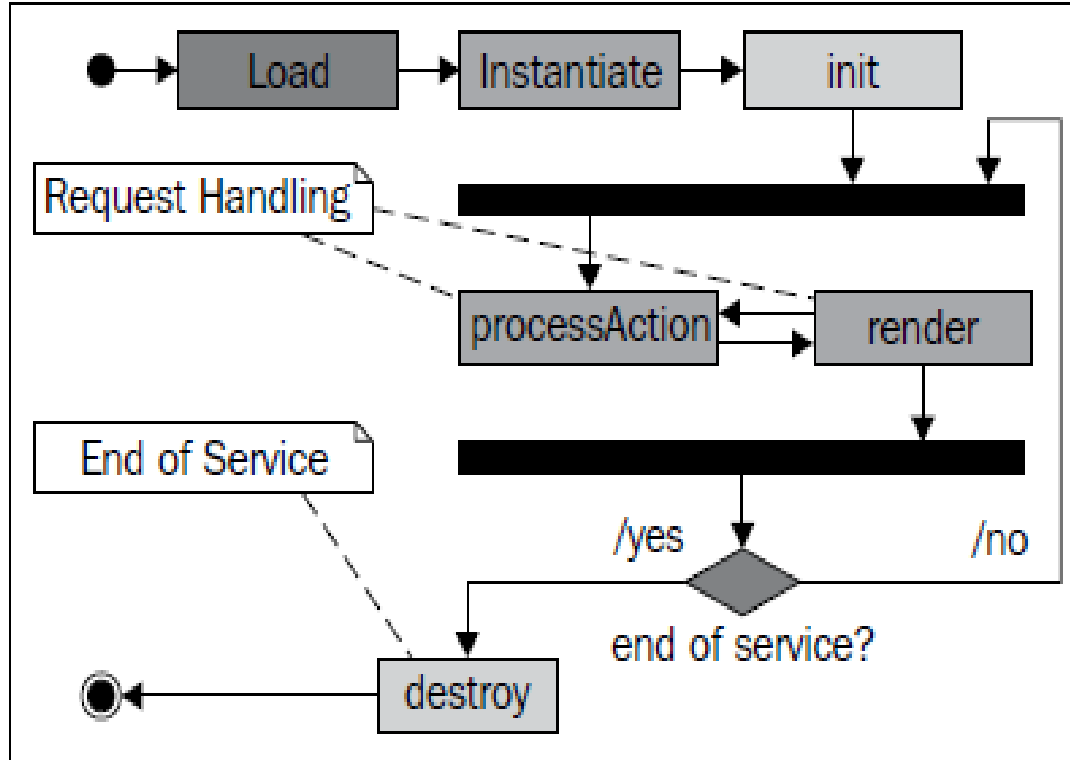


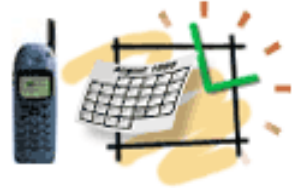
A Portlet is an application that presents a fragment of a portal page

A Portlet Container assembles the portlets into a portal page



# Portlet Life-Cycle



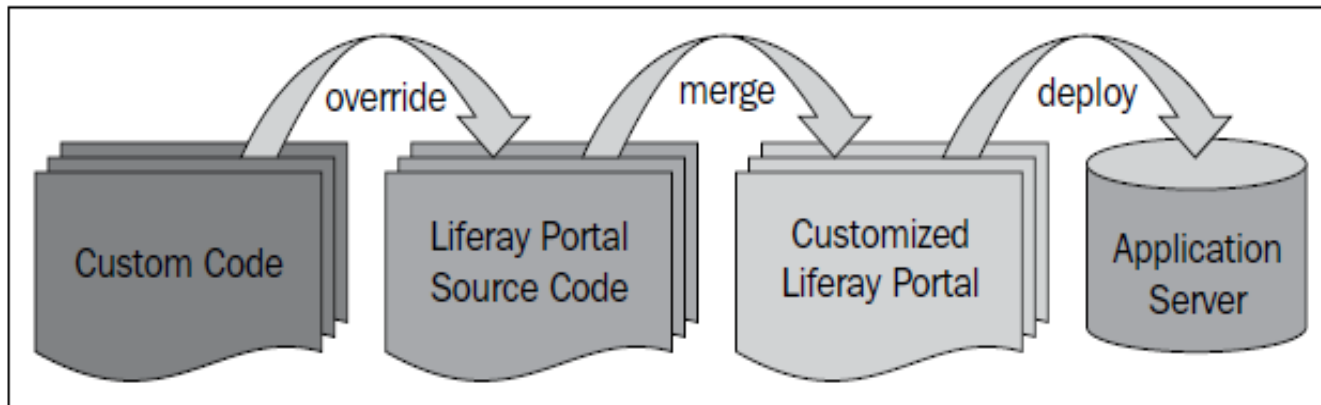


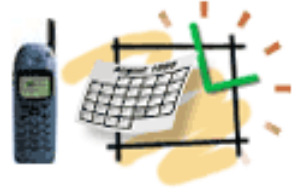
## EXT Environment

### What is EXT?

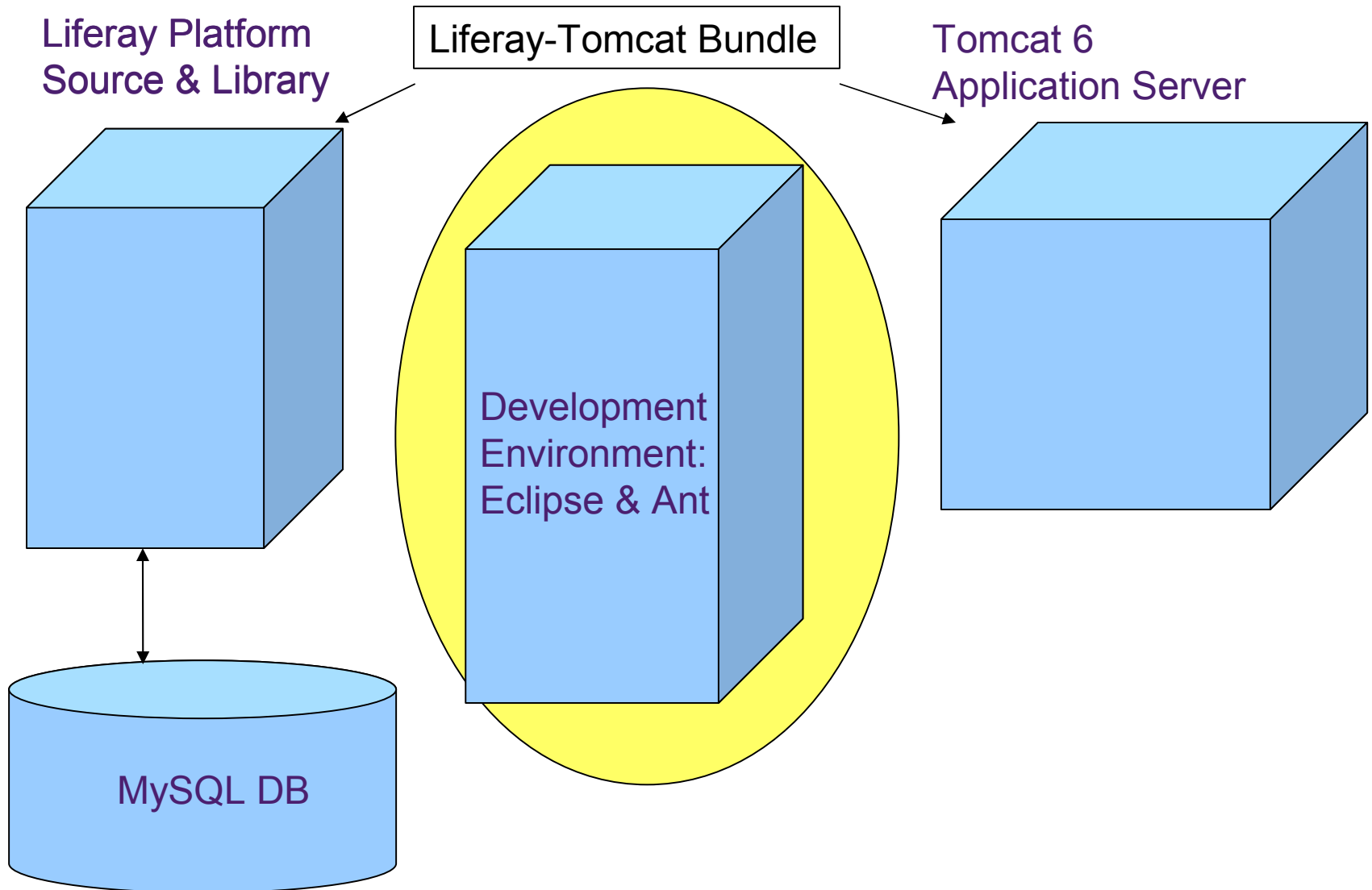
Ext is a wrapper for Liferay portal core source directories (that is, ext-impl/, ext-service/, and ext-web/).

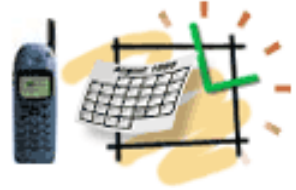
EXT allows the users to develop on top of Liferay source





## Basic Components





## Install Ant and establish the workspace in Eclipse

Download and Install Ant from:

<http://ant.apache.org>

- set the **ANT\_HOME** system variable

For example, **c:\tools\ant**

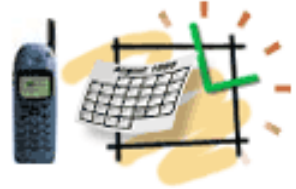
(similar as **JAVA\_HOME** )

- add to the **PATH** variable the location of **ant\bin**

For example, **c:\tools\ant\bin**

Start Eclipse and create a new workspace:

<c:\liferay\workspace>



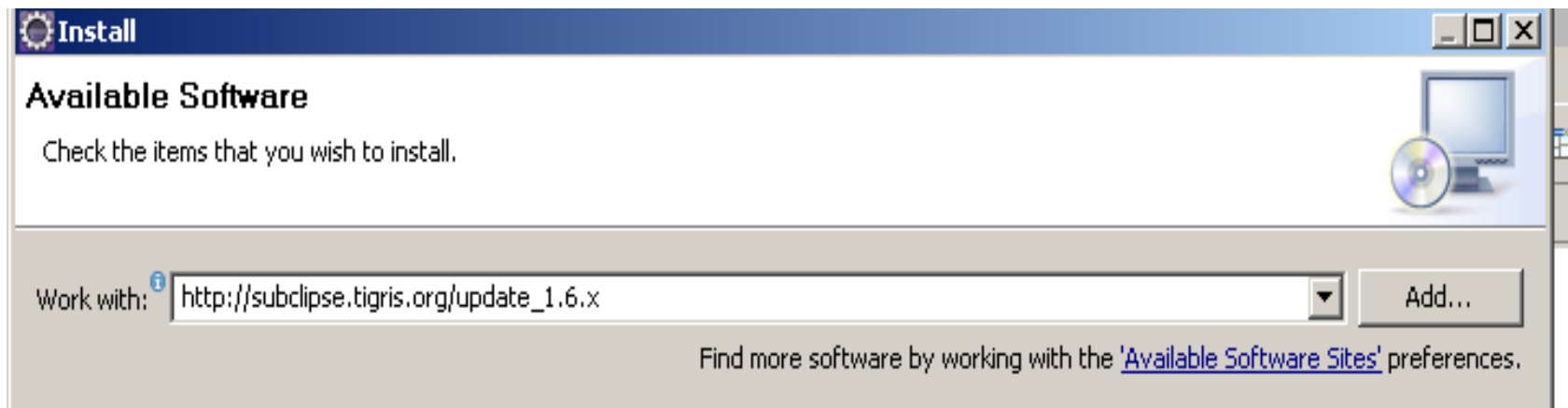
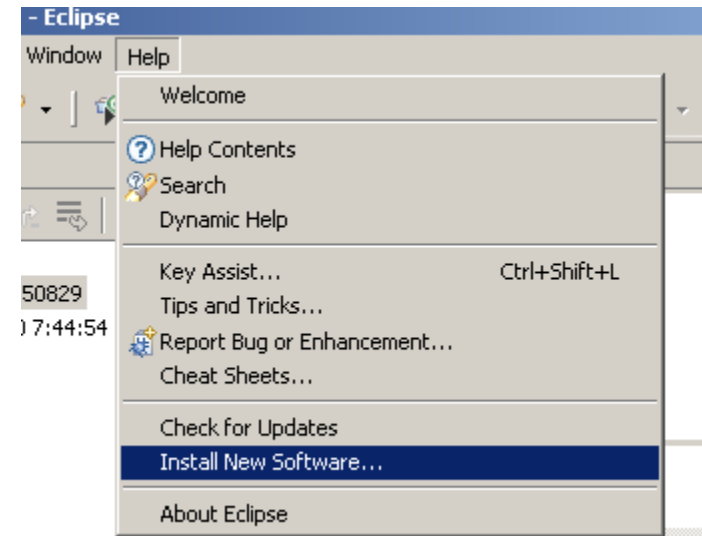
## Install Subclipse (Subversion)

1. Open in Eclipse the Help – Install New Software window

2. Copy & paste the URL below for the update

[http://subclipse.tigris.org/update\\_1.6.x](http://subclipse.tigris.org/update_1.6.x)

3. Update Eclipse with this new plugin





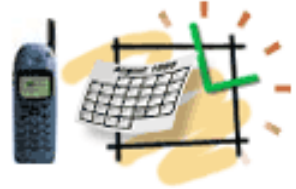
Use the Subversion to get the Latest (Stable) Code from Liferay

After installation, open the Subclipse:

1. From the **Window** menu, select **Open Perspectives**.
2. Click on **Other...**
3. Select **SVN Repository Exploring**, and then click on the button **OK**.
4. Right-click on the **SVN Repositories** view.
5. Select **New** and the **Repository Location...**
6. Provide input as `svn://svn.liferay.com/repos/public` and click on **Finish**.

User Name = “**guest**” (Leave the **password** field empty)

Expand the plugins and portal folders to see Liferay portal source code



## Download and unzip Tomcat Plugin

Download the tomcatPlugin.zip from:

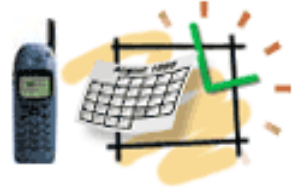
<http://10.2.147.35:8080/share/tomcatPlugin.zip>

Unzip its content into the folder:

<c:\eclipse\dropins>

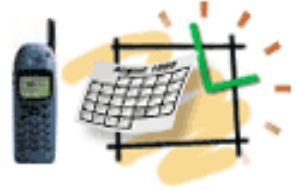
**Restart Eclipse and see the new Tomcat controls icons**





## Liferay Setup Summary

- **What we did first?**
- **Next?**
- **Next?**



## Liferay Setup Summary

- **What did we do first?**
  - **Liferay-Tomcat bundle install**
- **Next?**
  - **MySQL and Tools**
- **Next?**
  - **EXT Environment**