Liferay Portlet Basic Interview Questions

What is Portal?

Portal is platform to create web applications where portal provides commonly used features such as user management, authentication, sites, web content management to avoid creating from scratch. Portal assembles multiple portlet applications to form a page

What is Portlet?

Portlet is single application fragment on Portal

#What is Liferay portal and how it differs from other portals IBM WCM,Web logic?

- •Liferay Portal is platform contains common applications used to create web application
- •Liferay provides a development framework with highly customization components for building a site.
- •Liferay Portal can be used for content management, be it web content management
- •Liferay Portal offers a rich collaborative application suite with:
    - •Calendars
    - •Blogs
    - •Wikis
    - •Workflow
    - •User Management

What are differences between JSR-168 and JSR -286?

JSR – 168	JSR-286
Portlet 1.0 Specification	Portlet 2.0
Does not support IPC	Supports IPC through events and public render parameters
No support of serviceResource() method	included servetResource method to load resources dynamically
No Support of Portlet filters	Included portlet filters

is Liferay is JSR-168 compliant or JSR-286?

JSR – 286

#Which all methods JSR-286 supports?
init(),render(),processAction(),processEvent(),serveResource(),destroy()

#Which JSR-286 portlet class extends?
GenericPortet

#What class LiferayMVCPortlet extends?

LiferayPortlet -> GenericPortlet

#What are the differences between Portlet and Servlet?

A Portlet container is built on top Servlet container.

Portlets	Servlet
Portlets renders part of HTML	Servlets renders complete HTML document
Portlets does not generates complete HTML document and it is just fragment	Servlets will geneate whole HTML document
Portlets are managed in portlet container	Servlets are managed in Servlet container
Portlets can not be accessed URL and portlet should be placed on portlet page to access	Servlets can be accessible with URL
Portlets supports CHTML,WML,XHTML content types only	Servlets supports generatins of all content types
Has three types of requests: render, action,resource	Has Single type of action called : HttpServletRequest
Portlets can define window states and modes/td>	Servlet can not difine window states and modes

#What is Portlet Name space and why it is important ? how do you get portlet namespace in JSP?

- •Portlet namespace is portlet Id
- •p_p_id parameters also contains portlet namespace
- •portlet name space is prefixed with url parameters, so that portlet container will identify the parameters belongs what portlet
- •In JSP:
  - •<% String nameSpace= renderResponse.getNamespace() %>
  - •

#In Portlet URL, what is p_p_lifecycle?

p_p_lifecyle holds integer value and represents the portlet lifecycle phase that portlet belongs:

- •0 means render phase
- •1 means action phase
- •2 means server resource phase.

In Portelt URL, what is p_p_state?

p_p_state is window state of portlet and will be one of normal, maximized and minimized

How to get ServletRequest from PortletRequest Object?

Explain Portlet Life cycle?
Access below link for complete details on Life cycle:

Liferay portlet basics and lifecycle

 What is Portlet? a portlet is fragment on a webpage as web application and is used with portlets on the same webpage. There are 2 JSR standards for portlet behavior: JSR 168 (Portlet 1.0 specification):   READ MORE

What are portlet modes?

Access below tutorial for complete details:

Liferay portlet modes

What is Portlet mode? Portlet modes are used to indicate what functions are they are doing currently. The portlet modes are defined in portlet.xml file. Java Portlets supports 3 portlet modes : view edit help Liferay added…READ MORE

What are window states?

Access below tutorial for window states:

Liferay window states

 What is window state: window state indicate the amount of space taken by the portlet All java supported portlets have the below modes: Minimized: only portlet title bar is displayed when user clicks Maximized:The portlet occupies entire…READ MORE

Explain possible ways of creating renderRequest in JSP and controller?
Using Response Objects

```
renderResponse.createActionURL();

renderResponse.createRenderURL();

renderResponse.createResourceURL()
```

Using Portlet and liferay-portlet tag libs

```
<portlet:renderURL var="viewUser" >

  <portlet:param name="mvcPath" value="/html/createuser/viewUser.jsp" />

</portlet:renderURL>

<portlet:actionURL var="deleteUser" name="deleteUser" >
```

```
</portlet:actionURL>
```

Using PortletURLFactoryUtil

```
PortletURLFactoryUtil.create(PortletRequest portletRequest, String portletId, long plid, String
lifecycle)
```

How to validate Form in JSP?

Liferay provides AUI Tag library to validate form elements

```
<aui:input name="customerEmailAddress">

<aui:validator name="required" errorMessage="This is required attribute"></aui:validator>

<aui:validator name="email" errorMessage="Enter valid Email"></aui:validator>

</aui:input>
```

The below are AUI out of the box validators for input fields:

acceptFiles ,alpha , alphanum , date ,digits , email ,equalTo ,max ,maxLength ,min,minLength,number ,required,url

What is Use of <portlet:defineObject> and <liferaytheme:defineObject>?
These are liferay tag libs and provide access to below list of objects in JSP:

portlet:defineObject will provide following variables

- •renderRequest and renderResponse
- •actionRequest and Response
- •eventRequest and Response
- •resourceRequest and Response
- •portletConfig
- •portletSession
- •portletSessionScope
- •portletPreference
- •portletPreferencesValues

liferay-theme:defineObject will provide following variables

- •themeDisplay
- •company
- •user
- •realUser
- •contact
- •layout
- •layouts
- •plid
- •layoutTypePortlet
- •portletGroupId

- •permissionChecker
- •locale
- •timeZone
- •theme
- •colorScheme
- •portletDisplay

What is expiration cache defined in portlet.xml ?

Explain IPC(Inter portlet communication)?
- •Portlet 1.0 did not offer any standard method for portlets to communicate with each other
- •Portlet 2.0 (JSR – 286) addresses this issue with 2 different mechanisms for IPC.
  - •Public Render Parameters
  - •Portlet Events

What property is used to publish event to all portlets on different pages in portal-ext.properties

portlet.event.distribution=layout-set

Which property is used to publish event to all portlets on different pages ?

public.render.parameter.distribution=layout-set

What is the use of the PortletPreferences interface?

Portlet Preferences are properties for storing basic portlet configuration data. Administrators often use preferences to provide a customized view of a portlet to users based on preferences.

Click here to for complete details:

Why are friendly URL's important?

Access below tutorial for friendly URL's

Liferay friendly url

Liferay Friendly URL In this tutorial, we will see how to make Liferay URL to friendly. Liferay generates lengthy URL's for render,action,resource which looks clumsy and not readable and add below URL parameters which are not required.: p_p_id p_p_col_id –…READ MORE

#How to change default landing page in Liferay?

```
#

# Set the default landing page path for logged in users relative to the
```

```
# server path. This is the page users are automatically redirected to after

# logging in. For example, if you want the default landing page to be

# http://localhost:8080/web/guest/login, set this to /web/guest/login. To

# activate this feature, set auth.forward.by.last.path to true. To customize

# the behavior, see com.liferay.portal.events.DefaultLandingPageAction in

# the "login.events.post" property above.

#

# The following variables can be used: ${liferay:screenName} and

# ${liferay:userId}.

#

default.landing.page.path=

#default.landing.page.path=/web/guest/login

#default.landing.page.path=/user/${liferay:screenName}/home
```

Advanced Liferay Interview Questions

- Explain cluster process in Liferay?
- Access below tutorial for cluster setup in liferay

Liferay Clustering Concepts

Liferay Clustering Concepts tutorial will drive you on clustering concepts. Applications are required to configure clustering handle large amount of traffic when one of the servers goes down. READ MORE

- How do you track live uses in Liferay?

- To save user sessions to database then add below in portal-ext.properties, but enabling this feature will decrease the portal performance: session.tracker.memory.enabled=true
- To enable Live users monitoring: live.users.enabled= true

- How to create portlet filters in Liferay?

- Access the below tutorial for portlet filters:

Liferay Portlet Filter Tutorial:

Liferay Portlet Filter Tutorial In tutorial, we will see "how to create a filter in custom portlet". Filters are new in JSR-286 and there are there types of filters. Render Filter – Render Filter will be executed in Render…READ MORE

- How to install Liferay Latest fix packs?

- Access the below tutorial for complete details:

liferay patching tool

Liferay provides patching-tool utility to update latest fix packs provided by the liferay. Liferay Enterprise already configured with Patching tool. If patching tool not found then download from liferay and configure. READ MORE

- How to prevent duplicate form submission in Liferay?

click here for duplicate Form Submission in Liferay

In most cases, developers will face duplicate form submission in Liferay with processAction method as a form handler. This post drives you through approach on "How to prevents duplicate form submission in Liferay? READ MORE

- In Liferay, How to disable or increment session timeout?

Liferay session timeout

- In this tutorial, we will look into Liferay session timeout. Liferay session time out has set to 30 minutes by default and loaded from below files: portal-ext.properties: The below property will be used to set session timeout….READ MORE

- How to configure service builder for external datasource?

- What is difference between BaseStructsAction and BaseStrutsPortletAction?

- How to you configure Liferay with separate Datasources for read and write operations?

- add jdbc properties in portal-ext.properties:

- jdbc.read.url=jdbc\:mysql\://localhost:3306/lportal

  jdbc.read.driverClassName=com.mysql.jdbc.Driver

  jdbc.read.username=root

  jdbc.read.password=root

```
jdbc.write.url=jdbc\:mysql\://localhost:3306/lportal

jdbc.write.driverClassName=com.mysql.jdbc.Driver

jdbc.write.username=root

jdbc.write.password=root
```

- In Portal-ext.properties file, add the below spring context files in spring.configs in
  - META-INF/dynamic-data-source-spring.xml,
  - META-INF/shard-data-source-spring.xml,

```
• spring.configs=\

META-INF/base-spring.xml,\

\

META-INF/hibernate-spring.xml,\

META-INF/infrastructure-spring.xml,\

META-INF/management-spring.xml,\

\

META-INF/util-spring.xml,\

\

META-INF/jpa-spring.xml,\

\

META-INF/executor-spring.xml,\

\

META-INF/audit-spring.xml,\

META-INF/cluster-spring.xml,\

META-INF/editor-spring.xml,\

META-INF/jcr-spring.xml,\

META-INF/ldap-spring.xml,\

META-INF/messaging-core-spring.xml,\

META-INF/messaging-misc-spring.xml,\
```

```
META-INF/mobile-device-spring.xml,\

META-INF/notifications-spring.xml,\

META-INF/poller-spring.xml,\

META-INF/rules-spring.xml,\

META-INF/scheduler-spring.xml,\

META-INF/search-spring.xml,\

META-INF/workflow-spring.xml,\

\

META-INF/counter-spring.xml,\

META-INF/mail-spring.xml,\

META-INF/portal-spring.xml,\

META-INF/portlet-container-spring.xml,\

META-INF/staging-spring.xml,\

META-INF/virtual-layouts-spring.xml,\

\

META-INF/monitoring-spring.xml,\

\

META-INF/dynamic-data-source-spring.xml,\

META-INF/shard-data-source-spring.xml,\



\

classpath*:META-INF/ext-spring.xml
```

• How do you configure Sharding in Liferay?

Access below tutorial for Liferay Database sharding

Liferay Sharding

Liferay Sharding Liferay Sharding allows you to split up the database by portal instance only.Database sharding allows system more scalable. What is Sharding? Sharding is used to split up the database by filtering data.READ MORE

- •How to send mail notification to user?
- •Using MailServiceUtil:

```
•MailMessage mailMessage = new MailMessage();

  mailMessage.setHTMLFormat(true);

  mailMessage.setSubject("Hi There");

   mailMessage.setBody("body");

  mailMessage.setFrom(new InternetAddress("email","username"));

  mailMessage.setTo(new InternetAddress(toAddress));

  MailServiceUtil.sendEmail(mailMessage);
```

- •Using Subscription sender also we can send mail:

```
•  SubscriptionSender subscriptionSender = new SubscriptionSender();

   subscriptionSender.setCompanyId(user.getCompanyId());

   subscriptionSender.setFrom(fromAddress, fromName);

   subscriptionSender.setHtmlFormat(true);

   subscriptionSender.setServiceContext(serviceContext);

   subscriptionSender.setSubject(subject);

   subscriptionSender.setUserId(user.getUserId());

   subscriptionSender.addRuntimeSubscribers(toAddress, toName);

   subscriptionSender.flushNotificationsAsync();
```

- •What is default time zone in Liferay and how to change that?
- •How to set password expiration in Liferay?
- •How to configure portal ext properties per comapnyId
  - •create portal-{companyId}.properties
- •How to change the Liferay portal authentication method?
  - •sss

```
•  company.security.auth.type=emailAddress
```

```
#company.security.auth.type=screenName

#company.security.auth.type=userId
```

- •you can change in control panel also Control Panel -> Portal Settings -> Authentication page
- •What are all the required steps for cluster setup in Liferay?
- •How to test successful cluster setup in Liferay?
- •How to setup cache replication using cluster link?
- •How to setup solr integration with Liferay?

•Explain steps in LDAP integration with Liferay?

•Settings for LDAP can be configured from the Admin portlet, if it is always best practice configure LDAP via portal-ext properties and access below tutorial for complete details:

Liferay LDAP integration

 In this tutorial, we will look into Liferay LDAP Integration and user import process. LDAP Installation : LDAP setup has explained in this tutorial with OpenDJ. Click here to see this tutorial before going through this. READ MORE

•How to enable LDAP Authentication?

```
•  ldap.auth.enabled=false

   ldap.auth.required=false
```

•How to enable LDAP import ?

```
•  #

   # Settings for importing users and groups from LDAP to the portal.

   #

   ldap.import.enabled=false

   ldap.import.on.startup=false

   ldap.import.interval=10
```

•How to imporrt LDAP users password ?

```
•  #

   # Set this to false when the LDAP user's password should not be imported to  the Liferay user.

   #
```

```
        ldap.import.user.password.enabled=true
```

  •How to use LDAP Password policy rather liferay default password policy?

- #

  # Set this to true to use LDAP's password policy instead of the portal password policy.

        ldap.password.policy.enabled=false

Liferay ServiceBuilder Interview Questions

What is Service Builder and advantages of using it?
Access this tutorial for details:

Liferay ServiceBuilder concepts and anatomy

 Liferay provides Service Builder tool for generating modal objects, Service layer and DAO layer. Let's say we have to design leave system where end user will apply for leave. In this, we can design Leave as modal object….READ MORE

Explain Service builder generated classes?
Access the below tutorial for complete details:

Liferay ServiceBuilder concepts and anatomy-part2

In the previous tutorial, we have gone through service builder and its component. In this we will talk about below generated classes and its relationships: service.xml components Modal Classes Service Classes Persistence Classes Spring : …READ MORE

How to prevents automatically apply changes to database on a new version of the plugin is deployed?
build.auto.upgrade=true enables auto upgrade of database and you can find that in service.properties

Create service-ext.properties and add build.auto.upgrade = false.

How do you enable auto generation of primary key in the service builder?
Set Id type to "increment"

```
<column name="sectionId" type="long" primary="true" id-type="increment" />
```


What are all default services available in <<Entity>LocalServiceImpl ?
UserLocalService,CounterLocalService,ResourceLocalService

How to inject GroupLocalService in ServiceBuilder generated services?
The reference element allows you to inject services from another service.xml within the same class loader

```
<reference entity="Group" package-path="com.liferay.portal"></reference>
```

What is the purpose of order xml tag in service.xml?
The order element specifies a default ordering and sorting of the entities when they are retrieved from the database.

```
<order by="asc">

 <order-column name="startDate"></order-column>

 </order>
```

What types caches available in Liferay Persistence layer?
Three types of cache at persistence layer:
   •Entity
   •Finder Level cache generated by Service builder
   •Hibernate L1 & L2 cache
At Service level
   •SingleVmPool
   •MultuVMPool

How to disable entity cache in Liferay?
by setting cache-enabled to false on top of each entity. This will disable cache

How to generate service builder for existing tables in Liferay Database Schema?
service builder provides "table" and "db-name" elements to map existing tables like shown below:

```
<entity name="Education" local-service="true" remote-service="false" table="education">

 <column name="educationId" type="long" primary="true" id-type="increment" db-name="eduId"/>

 <column name="userId" type="long" db-name="userId"></column>

 <column name="collegeName" type="String" db-name="cName"></column>

 <column name="startDate" type="Date" db-name="startDate"></column>

 <column name="endDate" type="Date" db-name="endDate"></column>

 <column name="courseName" type="String" db-name="courseName"></column>



 <order by="asc">

 <order-column name="startDate"></order-column>

 </order>

 <finder return-type="Collection" name="userId">
```

```
<finder-column name="userId"></finder-column>

</finder>

</entity>
```

What is Custom SQL and when to use Custom SQL?
- •Liferay Service Builder generated finder methods works on single entity also.Service builder generated Finder methods executes simple queries to pull the data only, but what if your applications requires to join two tables?
- •Liferay Custom SQL is used for complex queries to get results from multiple tables or join multiple tables
- •Access below tutorial for Custom SQL:

Liferay custom sql example

 Liferay out of the box, provides below ways to access Database: Service Builder Finder methods Database Access API : It provides JDBC mechanism to write SQL queries but extra burden to write POJO mappings Dynamic Query…READ MORE

Explain high level steps for implementing Custom SQL?
- •Create default.xml fine in src/custom-sql folder
- •update default.xml file with below:

```
<custom-sql>
    <sql id="com.javasavvy.employee.getEmployees">
    SQL query wrapped in <![CDATA[...]]>
    No terminating semi-colon
    </sql>
</custom-sql>
```

- •Create FinderImpl, name should be <EntityName>FinderImpl in persistence.impl package
- •FinderImpl class need to extends BasePersistenceImpl<EntityName> and implements <EntityName>Finder.
- •<EntityFinder>Finder is interface that will generate after you run the buildService
- •Now create methods to execute the SQL Id's that defined in default.xml
- •Refer the <EntityName>FinderUtil in LocalServiceImpl class to access methods

What is DynamicQuery API and when to use that?
- •Liferay DynamicQuery API is used to build queries dynamically at run time
- •Liferay DynamicQuery API uses Hibernate's Criteria API, in which you no need to build queries SQL and all you need to know is Objects and its variables

What are Modal Hints and how it usefull?
- •Model hints are used to specify the size of database columns and specify entity data restrictions also.
- •portlet-model-hints.xml is used to update the modal hints
- •In portlet-model-hints.xml, we will create hint-collection as global setting which can be applied to all column with max-length etc.

What is Service Context ?
The ServiceContext class is used to pass contextual information to service from controller. ServiceContext stores informations required for portlets like tags, categories, groupId, such as permissions, tagging, categorization, and more.
Service Context also used to pass from controller to Service Layer to avoid parameters SericeContext has below parameters:

- •companyId

portletPreferencesIds

plid

scopeGroupId

userId

uuid

Permissions:

addGroupPermissions

addGuestPermissions

deriveDefaultPermissions

modelPermissions

currentURL

layoutFullURL

layoutURL

pathMain

pathFriendlyURLPrivateGroup

pathFriendlyURLPrivateUser

pathFriendlyURLPublic

portalURL

remoteAddr

remoteHost

userDisplayURL

- ServiceContext used to get categories, tag names

- serviceContext.getAssetCategoryIds(),

serviceContext.getAssetTagNames()

serviceContext.getAssetLinkEntryIds()

Please add any questions in comments if any thing missed. I will update here 🙂

Liferay Theme Interview Questions

- **How to set portlet preference in theme?**

Liferay provides a built-in VM variable called $velocityPortletPreferences for this purpose. $velocityPortletPreferences is a Map<String, String>. For each preference, pass its key string plus the value you desire. The key may be one of Liferay's built-in portlet preference keys, or (for plugin portlets) one of your own that your portlet knows how to interpret.

#set ($VOID = $velocityPortletPreferences.setValue('display-style', '1'))
#set ($VOID = $velocityPortletPreferences.setValue('portlet-setup-show-borders', 'false'))}}}

- Explain theme folder structure?

init_custom.vm   Allows you to add custom Velocity variables.
init.vm :   This holds default velocity variables
navigation.vm Implements the page navigation within the theme.
portal_normal.vm : Controls the look & feel of the portal template for normal pages. This file includes the other files.
portal_pop_up.vm Controls the look & feel of the portal templates for pop-ups. This is used to show a portlet when its window state is equal to LiferayWindowState.POP_UP
portlet.vm The template for portlet windows within the theme.

- What file theme developers need to update the custom css styles? ANS : custom.css

- How to access custom portlet service layer in theme?

- $serviceLocator.findService is used to load services (service folder classes service.jar) into theme velocity template

  Click here to access Liferay Service in Liferay theme Velocity Template

This tutorial will give light on accessing Liferay Services and Utilities at theme level. Liferay provides init_custom.vm file to hold custom…READ MORE

- How to access util tag lib in Theme velocity templates?

- $utilLocator.findUtil() is used to load util classes (util package classes in service.jar) into liferay theme velocity template

- **How to embed a portlet in theme ?**
- Ans : $theme.runtime("test_war_testportlet")
  - $theme.runtime($myPortletId, $queryString, $velocityPortletPreferences.toString())

- ## What is Layout Template?

- Layout templates are used to control portlets are displayed on UI like grid or column structure
- layout template are created using layout plugin type and need to design on {name}-template.tpl file

- ## How to get Theme Settings in JSP?

- by using theme display object, we can get theme settings
  - themeDisplay.getThemeSetting("key")

- ## In Liferay theme, How to serve theme static content from Apache ?

- by setting virtual-path in liferay-look-and-feel.xml file . The virtual-path value sets the virtual path used to fetch the CSS, images, and JavaScript files. By default, the portal returns the theme's servlet path. This setting allows you to override it. For example, suppose your theme is deployed to the servlet path "/test-theme" and your theme image-path is "/xyz/images". By default, the portal
will return "/test-theme/xyz/images" for the path of the theme's images. You can override it by setting virtual-path to "/virtual" and have the portal return "/virtual/xyz/images". This is useful when you want all static files to be served by Apache for better performance. The default value is "" which means this is not used.

```
• <theme id="professor" name="Professor" >

  <virtual-path>res</virtual-path>

  <settings>

  <setting key="portlet-setup-show-borders-default" value="false"></setting>

  </settings>

  </theme>
```


- ## How to embed web content at theme level?
- Using FM:

```
•<#assign groupId = themeDisplay.getScopeGroupId()>

<#assign journalArticleLocalService =
serviceLocator.findService("com.liferay.portlet.journal.service.JournalArticleLocalService")>

<#assign journalArticle = journalArticleLocalService.getLatestArticleByUrlTitle(themeDisplay.getScopeGroupId(), "hello", 0)>

<#assign journPortletIns = "56_INSTANCE_A1HSJX1" />

<#assign PortletPreferencesFactoryUtil = staticUtil["com.liferay.portlet.PortletPreferencesFactoryUtil"] />

<#assign portletSetup = PortletPreferencesFactoryUtil.getLayoutPortletSetup(layout, journPortletIns) />

<#assign temp = portletSetup.setValue("portletSetupShowBorders", "false") />

<#assign temp = portletSetup.setValue("groupId",groupId) />
```

```
<#assign temp = portletSetup.setValue("articleId", journalArticle.getArticleId()) />

<#assign temp = portletSetup.store() />

${theme.runtime(journPortletIns, "", portletSetup.toString())}
```

•or you can print the content:

```
•<#assign journalArticleLocalService =
serviceLocator.findService("com.liferay.portlet.journal.service.JournalArticleLocalService") >

<#assign footerContent= journalArticleLocalService.getLatestArticleByUrlTitle(themeDisplay.getScopeGroupId(), "hello",
0)>

${journalContentUtil.getContent(groupId, footerContent.getArticleId(), "", locale.toString(), themeDisplay)}
```

•What is recommended way to disable borders of all portlets?

Ans : Using theme settings as below

```
<look-and-feel>
<compatibility>
<version>6.1.10+</version>
</compatibility>
<theme id="sample-theme" name="Sample Theme">
<settings>
<setting key="portlet-setup-show-borders-default" value="false" />
</settings>
</theme>
</look-and-feel>
```

Note:- By default its true. we must have to explicitly set it to false.

• How To embed a portlet in layout

Ans : $processor.proceePortlet("3")

•How to disable dockbar ?

•we can disable the dockbar with below code:

```
•#if ($is_signed_in)

#dockbar()

#end
```

•How to implement color schemes in Liferay themes?

- How to resolve CSS conflict issue with Liferay AUI css when we incorporate 3rd party css?

  - Check this Tutorial : Liferay theme CSS conflict issues

Liferay theme CSS conflict issues tutorial gives solution for CSS conflict issues in Liferay theme. In general, Liferay applications are required to use custom css such as bootstrap plugins. etc, but Liferay it self used… READ MORE

Liferay Administration Interview Questions

- How to you manage liferay portal administration?

- The control panel provides an interface for the creation and maintenance of:
  - Plugin Configuration
  - Custom Fields
  - Portal Settings
  - Password Policies
  - Roles
  - Page Templates
  - Site Templates
  - Sites and Teams
  - Users and Organizations

- How to many ways you can embed a page from another application in Liferay?

- Two ways:
  - IFrame portlet
  - Web proxy Portlet

- What is IFrame and how do you configure IFrame portlet?

- Liferay provides IFrame portlet to embed a page from another application or same application
- With IFrame, users can navigate through the embedded page without losing the context of the portal page and adjusts to the size of the HTML page if the page is hosted on the same server.
- To add IFrame portlet:
- •Drag and drop the IFrame portlet using the Add button in the Dockbar.
- Click on the Please configure this portlet to make it visible to all users link or "Settings – > Configuration"
- Enter the Source URL and click Save.

- What is Web Proxy Portlet ?
- Liferay provides web proxy portlet which is similar to

Web Proxy - Configuration

Setup	Permissions	Sharing

URL

[   ]

Scope (Regex)

[.*]

Proxy Host

[   ]

Proxy Port

[   ]

Proxy Authentication

[None   ▼]

IFrame

- What are the differences between IFrame and Web Proxy ?
- IFrame is more like a window to another application and Web Proxy rendering a block of HTML into a portal page.

• links in an embedded IFrame application would take a user out of the portal, when clicked. In contrast, links served via the Web Proxy
portlet are automatically re-written, such that the user is not taken out of the portal context.
• With IFrames, the end user's browser must have direct access to the embedded application. In Web Proxy, applications can be
accessed through a firewall or other proxies that are not otherwise reachable by the end user's browser.

•What is Personalization in Liferay?

•In Liferay, Personalization is achieved through user pages, in which allows each portal user to manage and customize content or applications. Public pages provide a means of making content publicly available. Private pages provide a means for users to create content and use applications that should be hidden from other users

•What is WebDAV and how do you create documents is using webDAV?

•WebDAV is used to synchrozie local folders with Liferay Documents and Media folder
• How o use WEBDAV:
• Navigate to Control Panel -> and click on Documents and Media
• Hover the mouse over a folder on which WEBDAV needs to be enabled, click on the triangular button which will be displayed.
• Select Access from Desktop. • A WEBDAV URL will be displayed. Copy the URL to clipboard.
• In the local system, (considering a windows OS), right click on Computer -> Map Network Drive.
• Select a drive, paste the WEBDAV URL and click Finish.
• Enter the Liferay credentials, if prompted.
• Add some content to the mapped drive. It should be visible in the site.

•What is Role and How do you assign a role to user?

•Role specified function and linked to permissions in Liferay. We use role who have the same permissions
• Click on the Roles link in the control panel : a list of default roles appears.
• Click on the Actions button next to the required role and choose Assign Members.
• Click on the Available tab : this shows users who can be added to the role.
    • Check the user names to add them to the role.
    • Click Update Associations.

•What is Organization and how do you assign users to organization?

•Organizations are hierarchical collections of users. Users can be members of one or many of them, up and down the hierarchy. A collections of users that belong to same group can also grouped in organization
•Sites can associated with Organization
•Adding an organization:
    •Navigate to the control panel.
    • Under the Portal heading, select Users and Organizations link.
    • Click the Add -> Regular Organization Button.

- If the organization is a top level organization, do not select anything under the
  - Parent Organization option. Click Save

•What is User Group in Liferay and how it differs from Role?

•User Group nothing but arbitrary grouping of users with out any particular hierarchy.
•A role is nothing but permission or access rights to assign to user, but user group is to provide assign roles, sites and page for paricular group,
•Users groups are used
  - Assign several roles to a group of users
  - assign membership to site
  - assign pages to users

•What is page templates ?

•page templates provides a pre configured page for reuse and similar set of pages can be created quickly using page template.

•What is structures and templates ?

•Structures provide the ability to provide a format for the content so that users know what needs to be entered to have a complete article and provides dynamic data to template
•Templates defines how to display the content

•How to change authentication options in Liferay using Control panel?

•The Authentication page can be accessed by using the following path: Control Panel -> Portal Settings ->Authentication
The General tab allows the following settings:
- Authenticate via email address (default)
- screen name
- user ID

•What are page type available?

•There are 2 types of pages public and private at 2 levels : Site level and user level
•Site Pages: Public pages of a Site are those pages which can be accessed by any user irrespective of the user being a member of the Site   while Private pages are those pages which can be accessed only by users who are members of the Site or are Super administrators.
•User Pages : User public pages can be accessed by anybody but user private pages can be accessed only by the user.

•What is Site ?

•A site is set of public/private pages and there are 3 types of sites:
  - **Open**   : Users can become

•**Restricted**: Users can request site membership but site administrators must approve requests in order for users to become members. Requests can be made from the My Sites portlet

•**Private** : Users are not allowed to join the site or requestt site membership. Private sites don't appear in the My Sites portlet. Site

administrators can manually select users and assign them as site members.

•What is workflow and how workflow configuration will be enabled for custom entity ?

• Workflow is sequence of connected steps performed by one or more users. Liferay kaleo workflow is designed to manage the creation, modification and publication of web content or asset.

•You can set up a workflow so that content cannot be published without going through an approval process.

•In this way, content is published only after it has been reviewed and approved

•Liferay control panel contains Workflow Definitions,Workflow configuration and submissions tab to manage the kaleo workflow

•Definitions : admin will upload workflow defintion so that it will available to the assets

•Default Configurations : Admin will map the uploaded workflow definition with assets, so that asset will be enabled with workflow

•Submissions: This section shows list of pending and completed workflow tasks

Liferay Hook Interview Questions

•What is Hook plugins in Liferay?

•Liferay Hooks are used to override core functionality of liferay services, web resources, language properties, filters, indexers, structs actions etc and below are list of Hooks available in Liferay 6.2 below versions. Liferay DXP will not use any HOOKs at all and it uses OSGI platform to override the Liferay core functionality.Access tutorial for complete details:
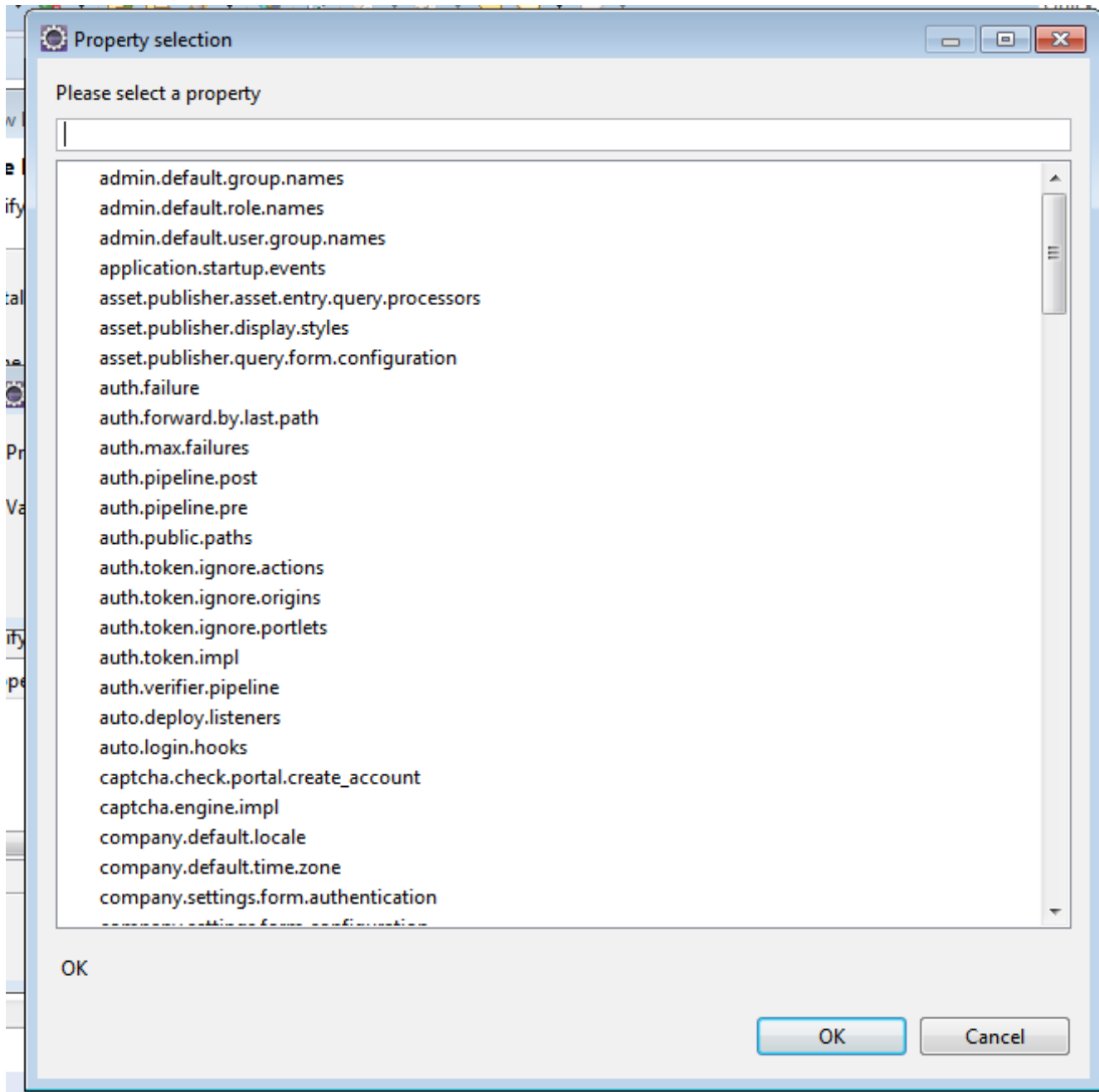
•Liferay Hooks

•What are all configuration can be overridden using Hooks?

•Web resource (JSP, JS, images) Hooks

•Service wrapper Hooks

•Portal Properties

•Portal Events

•application.startup.events

•login.events.post

•login.events.pre

•logout.events.post

- logout.events.pre
- servlet.service.events.post
- servlet.service.events.pre
- servlet.session.create.events
- servlet.session.destroy.events
- Portal Properties

-

Property selection

Please select a property

admin.default.group.names
admin.default.role.names
admin.default.user.group.names
application.startup.events
asset.publisher.asset.entry.query.processors
asset.publisher.display.styles
asset.publisher.query.form.configuration
auth.failure
auth.forward.by.last.path
auth.max.failures
auth.pipeline.post
auth.pipeline.pre
auth.public.paths
auth.token.ignore.actions
auth.token.ignore.origins
auth.token.ignore.portlets
auth.token.impl
auth.verifier.pipeline
auto.deploy.listeners
auto.login.hooks
captcha.check.portal.create_account
captcha.engine.impl
company.default.locale
company.default.time.zone
company.settings.form.authentication

OK

OK   Cancel

- Struts Action
- Servlet Filters
- Auth Pipeline

- Modal Listeners
- Indexers
- Language Hook

•What is your preference in EXT and HOOK?

- Liferay Hooks are hot deployable, but EXT's are not. so always prefer Hooks over EXT's to override core functionality.
- EXT should be used when it is not feasible through HOOK configuration

•Explain how do you override liferay login.jsp?

- We will create JSP Hook for this, so create hook plugin
- Create custom_jsps in docroot like :   **docroot/custom_jsps**
- edit liferay-hook.xml and add below tag:
  - <custom-jsp-dir>/custom_jsps</custom-jsp-dir>
- copy the login.jsp from html path like : html/portlet/login/login.jsp

•Explain how does liferay loads hooked JSP?

- Liferay just copies login.jsp from hook plugin to to liferay html folder and moves original html to login.portal.jsp,which is original file.
- When we un deploy, liferay just deletes login.jsp and reverts login.portal.jsp file again.

•Suppose you have created two hook plugins for login.jsp? which one will take effect?

- Both Hook plugin will deploy and you will not get any error. Liferay uses JSP from which it deployed latest order.

•What is importance of custom-jsp-global tag in liferay hook? or (What is Application Adapters in Liferay and how to create them)?

- Application Adapters are Hook Plugins will allow us to scope the Hook changes to a particular site by not affecting the entire portal.
- How to create Application Adapter?
  - To create a Application Adapter, all you need is a Hook with custom JSPs and "custom-jsp-global" set to false

```
•<hook>

  <custom-jsp-dir>/custom_jsps</custom-jsp-dir>

  <custom-jsp-global>false</custom-jsp-global>

</hook>
```

- When custom-jsp-global set to "true" then the hook is applied to all sites .

- When custom-jsp-global set it to **false** then we have the option of configuring which sites that hook will apply. Go to the Control Panel > Sites > Test Site > Configuration > Site Settings and at bottom of page, you will find a Configuration section with Application Adapters and a drop down. There you can set the hook you

want to apply to the site
- **How you can change the existing implementation of indexing of Liferay Coreservice**
- Using Indexer Post Processor hook

- Is it possible to add new method in service through service wrapper hook?
- No. Even you write methods then those will not accessible

- can we add new struts actions using Hooks?
- Yes, We can create new struts actions

Liferay portal properties interview questions

What is order of loading portal properties?

    1. system.properties from portal-impl.jar
    2.portal.properties from portal-impl.jar
    3.portal-ext.properties is custom properties
    4.portal-setup-wizard.properties
    5.portal-ide.properties

#How to change the default email Authentication to screen name?

```
company.security.auth.type=emailAddress

#company.security.auth.type=screenName

#company.security.auth.type=userId
```

How to disable create account/ Register?

```
# Set this to true to allow strangers to create accounts and register

 # themselves on the portal.

 #

company.security.strangers=true
```

How to disable authentication on Liferay?

```
auth.login.disabled=false

 auth.login.disabled.path=/portal/login_disabled
```

How to set Liferay home directory?

```
liferay.home=${resource.repositories.root}
```

How to disable user reminder queries?

```
users.reminder.queries.enabled=true
```

How to disable terms of use after login?

```
terms.of.use.required=true
```

How to setup the email server configuration in Liferay?

```
###### via JNDI #######

mail.session.jndi.name=mail/MailSession



####Via Properties #######

mail.session.mail.pop3.host=localhost

mail.session.mail.pop3.password=

mail.session.mail.pop3.port=110

mail.session.mail.pop3.user=

mail.session.mail.smtp.auth=false

mail.session.mail.smtp.host=localhost

mail.session.mail.smtp.password=

mail.session.mail.smtp.port=25

mail.session.mail.smtp.user=

mail.session.mail.store.protocol=pop3

mail.session.mail.transport.protocol=smtp
```

How to disable JSON web services for security reasons?

```
json.web.service.enabled=true
```

How to increase counter table increment value?

```
#

# Set the number of increments between database updates to the Counter

# table. Set this value to a higher number for better performance.

#

counter.increment=100
```

#How to override default admin creation(test@liferay.com) in Liferay?

Override through portal-ext.properties:

- #

  # Set the default admin password.

  #

  default.admin.password=test

  #

  # Set the default admin screen name prefix.

  #

  default.admin.screen.name=test

  #

  # Set the default admin email address prefix.

  #

  default.admin.email.address.prefix=test

  #

  # Set the default admin first name.

  #

  default.admin.first.name=Test

  #

```
# Set the default admin middle name.

#

default.admin.middle.name=

#

# Set the default admin last name.

#

default.admin.last.name=Test
```