Back-End Developer Course Overview

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Target Audience

- Back-End Developers
- Java Developers
- Technical Architects

Prerequisites

This course requires you to have Java development experience.

Agenda

Days 1-4

Develop Applications

Setting up the Development Environment
- Prepare Your Environment for Development

Liferay's OSGi Container
- What is the OSGi Container?
- Working with Liferay Workspace
- Introducing Liferay Modules
- Manage Module Dependencies

Working with Portlet Modules
- The Java Standard Portlet

OSGi Basics
- Introduction to OSGi
- Basic OSGi Concepts
- What are Bundles?
- Components and Services
- Sharing Features
- Framework Architecture
- Benefits of Using OSGi

Managing OSGi Bundles
- Manage OSGi Bundles with the Gogo Shell
- Using the Felix Web Console

Develop a Real-World Application
- Create the Service Layer
- Create the Presentation Layer
- Using the Liferay Configuration Framework
- Implementing Permission Checking
- Integrating Our Applications into Liferay Frameworks
- Using Web Services
- Integration and Functional Testing
- Debug and Manage Deployment Issues

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Day 5

Customize Your Platform

Liferay Platform Architecture Overview
- Looking at Liferay's Platform Architecture

Extend Liferay's Schema
- Dynamically Add Custom Fields with the Expando API

Override Controller Actions
- Override Struts Actions
- Override Portal MVC Commands

Leverage Liferay's Message Bus
- Use the Message Bus to Listen for Asynchronous Messages

Customize the User Interface
- Liferay UI Technologies Overview
- Change the Default UI with Application Display Templates
- Customize the Application JSPs

Customize the Service Layer
- Override and Extend Liferay Services with the Service Wrapper
- Override OSGi Service References

Catch Portal Events
- Catch Portal Lifecycle Events
- Intercept Events with Model Listeners

Customize the Platform's Search
- Customize Indexing and Search Results with Processors

What You'll Learn

Whether you're a new or seasoned developer, Back-End Developer will equip you with the tools you need for successful back-end development with Liferay.

The course begins by teaching a foundational understanding of OSGi, covering topics like bundles, components and services, Liferay's OSGi Container, and working with modules.

Building on this foundation, you'll develop an end-to-end application and talk about strategies for debugging Liferay when things go wrong. Practicing integration testing replicates real-world situations so you can get hands-on experience for your own platform environment.

Once you've mastered application development, you'll move on to learning about Liferay's platform architecture for a comprehensive overview of customization.

The second half of the course covers customization of every layer of Liferay from the View Layer to the Persistence Layer, exploring how and where and when to customize.

LIFERAY

Liferay makes software that helps companies create digital experiences on web, mobile and connected devices. Our platform is open source, which makes it more reliable, innovative and secure. We try to leave a positive mark on the world through business and technology. Companies such as Adidas, Carrefour, Cisco Systems, Danone, Fujitsu, Lufthansa Flight Training, Siemens, Société Générale and the United Nations use Liferay. Visit us at www.liferay.com.

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