

## Oracle Fusion Middleware 11g: Build Applications with ADF II

**Duration:** 3 Days

### What you will learn

This course is aimed at web developers who need to apply more advanced techniques and comprehensive functionality to their applications using Oracle ADF. The course covers topics that are beyond the scope of Oracle Fusion Middleware 11g: Build Applications with ADF I, but this second-level ADF course assumes that participants are already familiar with the 11g techniques covered by the first course.

The course takes a practical approach to development, with labs that handle events, ADF BC service interfaces, the use of skins, and the reuse of components. Participants use Oracle JDeveloper 11g Release 1 Patch Set 1 throughout.

### Learn To:

- Apply company standards to the data model
- Provide Lists of Values (LOV)
- Display dynamically changing data
- Use skins to control the look-and-feel
- Integrate ADF with SOA and WebCenter

### Audience

- Developer
- J2EE Developer
- Java Developer
- Java EE Developer

### Prerequisites

#### *Suggested Prerequisites*

Oracle Fusion Middleware 11g: Build Applications with ADF I

### Course Objectives

- Extend Business Components to support company standards
- Provide validation, calculations and LOVs
- Dissect and employ essential databinding components
- Design application components for reuse
- Leverage Expression Language, Managed Beans and Java Server Pages
- Enhance an application with Active Data Service and ADF visualization components
- Customize the look-and-feel of an application by using skins
- Integrate applications with SOA and Web Center

### Course Topics

#### **Explore the Project Structure and Core File Architecture**

- Defining File Structure of a Project
- Examining Metadata Structure

Understand about Page Definition Files  
Defining ADF Data Control and Data Binding Files  
Exploring Connections  
Exploring ADF Faces and Web Configuration files

### **Extend the ADF Business Components Framework**

Examining general considerations when using ADF Business Components  
Understanding Framework Classes and Framework Hierarchy  
About PL/SQL in Business Components  
DML and Database Views  
DB Constraints, Compositions and Associations  
Transactions with Compositions and Associations  
Trigger assigned PK  
Many-to Many relationships and Auditing

### **Use ADF Business Components for Validation, Calculations and List of Values**

LOV View Objects  
List Data Source  
View Accessors  
Transient Attribute  
FK, Compare and Script Validations  
Groovy code  
View Criterias  
Registering Business Rules

### **Use Inheritance in the Business Domain Layer**

Implementing Inheritance  
Domain Layer  
Discriminators  
Supertype/Subtype  
Understanding Polymorphic Entity Usage  
Creating Polymorphic View Rows  
About Dynamic Rendering

### **ADF as part of a Service Oriented Architecture**

BPEL  
SCA  
Human Work Flow  
B2B Adaptor  
Service Data Objects  
Mediator Service  
WSDL

### **Implement Data Binding Concepts**

JSR-227 Data Controls and Bindings  
Understanding ADF Model  
Method, Accessor and Variable Iterators  
Value and Action Bindings  
DataBindings.cpx file  
Synchronization  
Data Control  
Named Bind Variables

## **Practical Data Binding in Action**

- JSF & Data Model
- ADFm Life Cycle
- Custom Controllers
- Customizing ADF Page Lifecycle
- Custom Listeners
- Conditional Values
- Google-Style Query

## **Work with Managed Beans and JavaServer Faces**

- Expression Language
- Understanding JSF Architecture and Life Cycle
- About Component Model and Navigation Model
- Managed Properties
- JSF Value Binding
- Backing Beans
- Context Objects

## **ADF Faces Advanced Features**

- JSR-127 JSF Components
- AJAX & Partial Page Rendering
- PRP Attributes: partialSubmit, autoSubmit, partialTriggers
- Runtime Layout
- Page-Level Actions
- Printable pages
- Boolean Checkbox
- Graphs and Charts

## **Integrate with WebCenter**

- Runtime Customization
- Content Management
- Portlets
- WebCenter Services
- Composer
- MDS
- WebCenter Spaces

## **Customize the Application Look and Feel with Skins**

- Using CSS
- Skinning architecture
- Skin Configuration
- Skin Selectors
- Skin Development by example
- Instance-specific component skins
- Skin inheritance