
Oracle JDeveloper 10g: Build Applications with ADF

Duration 5 Days

What you will learn:

Oracle JDeveloper (9.0.5.1), a development IDE in the Oracle Fusion Middleware product stack, is a free integrated environment with end-to-end support for modeling, developing, debugging, optimizing, and deploying Service Oriented Architecture (SOA).

This course is designed for developers who will build SOA using the accelerated productivity of Oracle Application Development Framework (ADF). You will learn how to build end-to-end J2EE applications efficiently, including both the MVC-based client components and the business services that are utilized by them. During the course, you will use the visual editors and modelers in Oracle JDeveloper 10g (9.0.5.1), to design and build your ADF components. The classroom practices focus on Web-based clients using Jakarta Struts and JavaServer Pages, supported by ADF Business Components.

Audience:

- J2EE Developer
- Java Developer

Prerequisites:

Required Prerequisites:

- Basic knowledge of SQL queries and data manipulation
- [Oracle Database 10g: SQL Fundamentals I](#)
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Course Objectives:

- Build Web-based views for an application, using declarative tools in Oracle JDeveloper 10g
- Use Oracle JDeveloper 10g to define user interface functionality and application flow based on Struts
- Generate and test the end-to-end components as a complete ADF application
- Design and implement business services using ADF Business Components

Course Topics:

Oracle Application Development Framework

- MVC architecture
- ADF technology stack
- ADF Business Components
- Overview of Apache Struts

ADF Development Process

- ADF development process
- JDeveloper 10g design-time elements
- Creating default Business Components
- JSP Visual Editor
- Page Flow Modeler

Getting Started with ADF Business Components

- Creating JDeveloper 10g application workspaces
- Creating default Business Components
- The Business Components Tester
- The role of Business Components: Entity Objects, View Objects, Application Modules

Building Business Logic

- Entity Objects
- Java support files for Entity Objects
- The Business Components Modeler
- Assigning initial values to attributes
- Mapping an attribute to an Oracle database sequence
- Adding Entity validation
- Creating and using Domains for validation

Exposing Business Data

- View Objects
- View Links
- Application Modules
- SQL based View Objects
- Business Components Modeler

Adding Custom Validation

- Adding and using Custom methods for validation
- Entity associations
- Publishing custom methods
- Typesafe data access methods

Providing for Efficient Queries

- SQL based view objects
- Expert mode view objects
- Programmatic View Objects
- Control Hints and attribute formatting

Making the Model Secure

- Java Authentication and Authorization Service (JAAS)
- Authentication
- OracleAS JAAS Provider (JAZN)
- Authorization
- Entity level authorization

Controlling an Application with Struts

- ADF and Apache Struts
- The purpose of a controller
- The Controller in the MVC architecture
- Processing navigation requests

Building ADF View Components

- JSP/HTML Visual Editor
- JSPs in and ADF application
- Basic JSP elements
- View Object control types

Customizing Actions

- The Struts configuration file
- Creating an Action class
- Using Forwards
- Form Beans: dynamic and static
- The application resources file

Using ADF Struts Components

- Data Actions
- Data Pages
- Using the Iterator
- The Data Action lifecycle
- Forwards and Events in ADF applications

Adding Validation and Error Handling

- Client side validation
- Form Bean validation
- The Struts validator
- Exception handling

Enhancing the User Interface

- Visual component properties
- Using the toolbar to format objects
- Adding images to JSPs
- Using Style Sheets
- Using Expression Language
- Adding navigation buttons

Adding JAAS Security to the Client

- JAAS provider
- Oracle JAAS implementation - JAZN
- Client authentication
- Adding JAAS to a client application

Building ADF UIX View Components

- ADF UIX technologies
- UIX page layout
- Internationalization
- Designing with the Visual Editor
- Design time data components
- Data binding in the Visual Editor

Deploying an ADF Application

- Deploying to e Web Server
- Deploying to OC4J
- OC4J connections
- Deployment profiles
- Deploying to OC4J

Suggested Next Courses:

- [Oracle 10g: Build J2EE Applications](#)