



J009 – Oracle Application Development Framework (ADF)

Course Objectives

Oracle's Application Development Framework uses visual tools to rapidly generate and maintain full-stack Java EE applications. Delegates on this course will learn how to use the tools to develop an end-to-end MVC sample application based on Oracle's 10g database and Java technologies including JavaServer Pages, the JSF framework and Enterprise JavaBeans. Java developers will learn how to customise such an application using hand-written code. The course also includes an analysis of the advantages and disadvantages of such tools for JEE code generation.

Who Should Attend

Developers
Oracle Forms Developers
Architects

Prerequisites

Understanding of SQL
Java Programming

Duration

3 Days

Course Contents

Overview of Java Technologies

Java Standard Edition
Java Enterprise Edition
Java 2 Enterprise Edition
Java Database Connectivity
Java Servlets
JavaServer Pages (JSP)
JavaServer Faces (JSF)
Enterprise JavaBeans

J2EE Architectures

Model-View-Controller (MVC)
Object-Relational Mapping
Layering an Application
The Facade Pattern
Portability

Oracle Products and Tools

Oracle 10g Database
TopLink
JDeveloper
Oracle Containers for J2EE (OC4J).

Data Access

Data Schemas: Table Relationships, Primary and Foreign Keys.
Database Tables as Java Objects.
Creating a Database Connection in JDeveloper
Generating Mappings between Entity Objects and Tables.
Table Associations in Java
The Business Components Modeller.

Validation
Identity Sequences
Customising Queries
Exposing Data for the View
Selecting valid ranges

Building ADF View Components

JSP and JSF Tags
Web Application Configuration: web.xml
Creating JSF Views in ADF
User Navigation and Page Flow.
Binding View Components to the Data Model.
JSP Expression Language
Customising with HTML and CSS Style Sheets.
Understanding and Using ADF Faces Components.

Security, Validation and Error Handling

Database Validation
Client Side Validation

Application Deployment

JEE Archive Format
Installing and Starting OC4J
Creating a Connection to the Web Server.
Deploying to OC4J
Running the Application in a Browser.

Issues

Pitfalls of Distributed Application Development.
Performance Issues
Scalability
Maintainability
Testability
Is Code Generation an Advantage?
Patterns and Architectures in Java Enterprise Development.