Oracle Fusion Middleware 11g: Build Applications with Oracle Forms

Duration: 5 Days

What you will learn

This course teaches students how to use Oracle Forms Builder 11g to rapidly build scalable, high-performance applications for the Web.

Students build a sample Forms application for an order entry system, using a variety of GUI controls. They learn to enhance the appearance and functionality of the basic form by using PL/SQL trigger, JavaBeans, and Pluggable Java Components.

Students learn to replace or supplement default transaction processing. They use WebUtil to interact with the client machine, and also learn to pass values from one form to another. They learn how to validate user input, control navigation, and display meaningful messages to users.

Emphasis is placed on designing objects and code for reuse.

Learn To:

Use Oracle Forms Builder 11g

Enhance applications with various GUI controls

Add functionality to applications by writing triggers

Use the Forms Debugger to troubleshoot applications

Validate user input and display meaningful error messages

Use WebUtil to interact with client computers

Audience

Application Developers
Developer
Forms Developer
PL/SQL Developer
Support Engineer
Technical Consultant

Prerequisites

Required Prerequisites

Experience with SQL and PL/SQL basics

Experience in advanced SQL & PL/SQL

Course Objectives

Create form modules, including components for database interaction and GUI controls
Display form modules in multiple windows and use a variety of layout styles
Test form modules in a Web browser
Debug form modules in a 3-tier environment
Implement triggers to enhance form functionality
Reuse objects and code

Link one form module to another

Course Topics

Running a Forms Application
Running a Form
Identifying the Data Elements
Navigating a Forms Application
Using the Modes of Operation
Querying Data
Inserting, Updating, and Deleting Records
Saving Changes
Displaying Errors

Working in the Forms Builder Environment
Forms Builder Key Features
Forms Builder Components
Navigating the Forms Builder Interface
Forms Builder Module Object Hierarchy
Customizing Your Forms Builder Session
Forms Executables and Module Types
Defining Environment Variables
Testing a Form with the Run Form Button

Creating a Basic Form Module
Creating a New Form Module
Creating a New Data Bock
Using Template Forms
Saving and Compiling a Form Module
Module Types and Storage Formats
Deploying a Form Module
Producing Documentation

Creating a Master-Detail Form
Creating Data Blocks with Relationships
Running a Master-Detail Form Module
Modifying the Structure of a Data Block
Modifying the Layout of a Data Block

Working Data Blocks and Frames
Managing Object Properties
Creating Visual Attributes
Controlling the Behavior and Appearance of Data Blocks
Controlling Frame Properties
Displaying Multiple Property Palettes
Setting Properties on Multiple Objects
Copying Properties
Creating Control Blocks

Working with Text Items
Creating a Text Item

Modifying the Appearance of a Text Item
Controlling the Data of a Text Item
Altering the Navigational Behavior of a Text Item
Enhancing the Relationship between Text Item and Database
Adding Functionality to a Text Item
Displaying Helpful Messages

Creating LOVs and Editors
LOVs and Record Groups
Creating an LOV Manually
Using the LOV Wizard to Create an LOV
Setting LOV Properties
LOV Column Mapping
Defining an Editor
Setting Editor Properties
Associating an Editor with a Text Item

Creating Additional Input Items
Input Items Overview
Creating a Check Box
Creating a List Item
Creating a Radio Group

Creating Noninput Items
Noninput Items Overview
Creating a Display Item
Creating an Image Item
Creating a Push Button
Creating a Calculated Item
Creating a Hierarchical Tree Item
Creating a Bean Area Item

Creating Windows and Content Canvases
Displaying a Form Module in Multiple Windows
Creating a New Window
Displaying a Form Module on Multiple Layouts
Creating a New Content Canvas

Working with Other Canvas Types
Overview of Canvas Types
Creating a Stacked Canvas
Creating a Toolbar
Creating a Tab Canvas

Producing and Debugging Triggers
Trigger Overview
Creating Triggers in Forms Builde
Specifying Execution Hierarchy
PL/SQL Editor Features
Using the Database Trigger Editor
Using Variables in Triggers
Adding Functionality with Built-in Subprograms

Using the Forms Debugger

Adding Functionality to Items
Coding Item Interaction Triggers
Interacting with Noninput Items

Displaying Run-Time Messages and Alerts
Built-Ins and Handling Errors
Controlling System Messages
The FORM_TRIGGER_FAILURE Exception
Triggers for Intercepting System Messages
Creating and Controlling Alerts
Handling Server Errors

Using Query Triggers
Query Processing Overview
SELECT Statements Issued During Query Processing
Setting WHERE and ORDER BY clauses and ONETIME_WHERE property
Writing Query Triggers
Query Array Processing
Coding Triggers for Enter-Query Mode
Overriding Default Query Processing
Obtaining Query Information at Run Time

Validating User Input
Validation Process
Controlling Validation by Using Properties
Controlling Validation by Using Triggers
Performing Client-Side Validation with PJCs
Tracking Validation Status
Using Built-ins to Control When Validation Occurs

Controlling Navigation
Using Object Properties to Control Navigation
Writing Navigation Triggers
Avoiding the Navigation Trap
Using Navigation Built-Ins in Triggers

Overriding or Supplementing Transaction Processing
Transaction Processing Overview
Using Commit Triggers
Testing the Results of Trigger DML
DML Statements Issued during Commit Processing
Overriding Default Transaction Processing
Getting and Setting the Commit Status
Implementing Array DML

Writing Flexible Code
What is Flexible Code?
Using System Variables for Flexible Coding
Using Built-in Subprograms for Flexible Coding
Copying and Subclassing Objects and Code

Referencing Objects by Internal ID
Referencing Items Indirectly

Sharing Objects and Code

Benefits of Reusable Objects and Code
Working with Property Classes
Working with Object Groups
Copying and Subclassing Objects and Code
Working with Object Libraries
Working with SmartClasses
Reusing PL/SQL
Working with PL/SQL Libraries

Using WebUtil to Interact with the Client

Benefits of WebUtil
Integrating WebUtil into a Form
Interacting with the Client

Introducing Multiple Form Applications

Multiple Form Applications Overview
Starting Another Form Module
Defining Multiple Form Functionality
Sharing Data among Modules