Oracle Application Express v5.0

Course Summary

Description

Application Express is Oracle’s lightweight database-centric web development tool that can be used to easily create small, simple web applications. It is ideally suited for the developer coming from the Oracle Forms/Reports world that wants to learn to develop a web application from scratch. It is equally useful for data managers that would like to move their data (and applications) from a single user environment such as a spreadsheet or Microsoft Access application to database repository. It provides great functionality for managing the database structures and actual data within an Oracle database.

Objectives

By the end of this course, students will be able to:
- Discuss the Oracle APEX architecture
- Use SQL Workshop/Utilities
- Build a database-centric Web application using Application Builder
- Build a Websheet application
- Administer an APPLICATION EXPRESS Workspace
- Use Team Development to manage APEX development projects

Topics

- Introduction to Oracle Application Express
- From the Developer’s Perspective
- Application Design Requirements
- Using SQL Workshop
- Application Builder Basics
- Basic Forms and Reports
- Advanced Forms and Reports
- Page Controls
- Security
- Application Deployment
- Websheets
- Additional Developer Tools
- APEX Instance and Workspace Administration
- Team Development
- Apex APIs
- APEX Plug-ins
- Dynamic Actions

Audience

This course is designed for application developers who want to learn to develop a web application from scratch. It is equally useful for data managers who would like to move their data (and applications) from a single user environment such as a spreadsheet or Microsoft Access application to database repository.

Prerequisites

Before taking this course, students should have a basic understanding of SQL and PL/SQL.

Duration

Five days
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Course Outline

I. Introduction to Oracle Application Express
   A. What is Oracle APEX?
   B. Benefits
   C. APEX History
   D. Architecture and Installation
   E. Typical APEX Applications
   F. Major Components
   G. APEX Resources

II. From the Developer's Perspective
   A. Workspace Concepts
   B. Workspace Login
   C. APEX Components
   D. Application Builder Overview
   E. Demonstration Applications
   F. SQL Workshop Overview

III. Application Design Requirements
   A. Identify system requirements
   B. From ERD to Tables
   C. APEX specific design issues

IV. Using SQL Workshop
   A. Accessing SQL Workshop
   B. Using Object Browser
   C. Establishing User Interface Defaults
   D. Executing SQL Commands
   E. Working with SQL Scripts
   F. Using the Utilities
   G. Using Data Workshop
   H. Generating DDL
   I. Managing the Recycle Bin
   J. Using Schema Comparison
   K. Using About Database

V. Application Builder Basics
   A. Understand the Basics of Application Builder
   B. Application Builder Terms
   C. Methods of Creating an Application
   D. Editing Application Properties
   E. Page Designer Overview

VI. Basic Forms and Reports
   A. Creating a Form
   B. Creating a Report
   C. Understanding Session State
   D. Using Help
   E. Declarative BLOBs

VII. Advanced Forms and Reports
   A. Pages
   B. Developer Toolbar
   C. Tabular Forms
   D. Classic and Interactive Reports
   E. Calendar Reports
   F. Chart Reports

VIII. Page Controls
   A. Items
   B. Buttons
   C. Page Rendering and Processing
   D. Validations
   E. Computations
   F. Processes
   G. Branching

IX. Security
   A. Overview of Security
   B. Authentication
   C. Creating a Authentication Scheme
   D. Authorization
   E. Creating an Authorization Scheme
   F. Access Control
   G. Session State Protection

X. Application Deployment
   A. APEX Application Lifecycle
   B. Deployment
   C. Export and Import

XI. Websheets
   A. Websheet Page Structure
   B. Navigation
   C. Help
   D. Markup Syntax
   E. User Authentication
   F. User Authorization
   G. Sections
   H. Administration

XII. Additional Developer Tools
    A. Page Locking
    B. Application and Page Groups
    C. APEX Views
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Course Outline (cont’d)

D. Build Options
E. SQL Developer and APEX
F. PL/SQL Refactoring
G. DML Packages

XIII. APEX Workspace Administration
A. Instance Administration
B. Request Modes
C. Workspace Administration
D. Manage Service
E. Manage Metadata
F. Manage Users and Groups

XIV. Team Development
A. Team Development Overview
B. Team Development Interface
C. Milestones
D. Features
E. To Do Items
F. Bugs
G. Feedback
H. News

XV. APEX APIs
A. APEX_APPLICATION
B. APEX_COLLECTION
C. APEX_ERROR
D. APEX_IR
E. APEX_ITEM
F. APEX_MAIL
G. APEX_PHPSQL_JOB
H. APEX_UTIL

XVI. Dynamic Actions
A. Dynamic Action Definitions
B. Dynamic Actions in Page Designer
C. Actions

XVII. APEX Plug-ins
A. Types of Plug-Ins
B. Item-type plug-in
C. Region-type plug-in
D. Dynamic action plug-in
E. Process type plug-in