

## Oracle Application Express 21 (APEX)

**Duration: 4 Days    Course Code: OAE21    Delivery Method: Company Event**

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### Overview:

#### Oracle Application Express 21 (APEX) Course Overview

This Oracle Application Express 21 (APEX) course introduces the delegate to Oracle's Application Express version 21 software. It is designed to give delegates practical experience in using Application Express version 21, also known as Apex, for building web-based applications for an Oracle database.

In version 21 there are a variety of enhancements to the developer environment including the code editor and a cleaner looking page designer interface. There is a new Theme Style, a Map Region type, some new or improved Item Types and other miscellaneous changes.

Exercises and examples are used throughout the course to give practical hands-on experience with the techniques covered.

#### Company Events

These events can be delivered exclusively for your company at our locations or yours, specifically for your delegates and your needs. The Company Events can be tailored or standard course deliveries.

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### Target Audience:

#### Who will the Course Benefit?

The Oracle Application Express 21 (APEX) course is aimed at Application developers, software developers, Web developers, Oracle Forms and Reports developers and technical support professionals who wish to develop interactive applications on the Web for end users.

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### Objectives:

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- By the end of the course delegates will be able to use the Oracle Application Express development environment for functional application development for the Web. They will gain practical experience in building and deploying applications for the Web, in using Application Express to manage database objects and in administering the Oracle Application Express environment.
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### Prerequisites:

- A working knowledge of Oracle SQL and a basic knowledge of Oracle PL/SQL is required. Some knowledge of HTML would be beneficial but is not essential.
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### Follow-on-Courses:

#### Further Learning

- Oracle PL/SQL Stored Program Units
  - Oracle 19c SQL Performance Tuning
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## Content:

### Oracle Application Express 21 (APEX) Training Course Course Contents - DAY 1

#### Course Introduction

- Administration and Course Materials
- Course Structure and Agenda
- Delegate and Trainer Introductions

#### Session 1: INTRODUCTION TO ORACLE APPLICATION EXPRESS

- APEX Concepts
- APEX Main Components
- Workspaces, Database Applications
- Creating a Workspace
- The Workspace Administrator
- Upgrading APEX
- Logging into APEX
- Running an Application
- New features in APEX 21

#### Session 2: SQL WORKSHOP

- Use APEX to Browse, Create and Modify Objects
- Process Ad Hoc SQL Statements
- Manage Scripts in APEX
- Create, Run and Save SQL Queries

#### Session 3: BUILD A DATABASE APPLICATION

- Application Components
- Create an Application
- Create an Application from a file

#### Session 4: CREATE REPORTS

- Creating Interactive Grids
- Create Reports Using Wizards
- Edit Report Attributes in Page Designer
- Add Links to Reports
- Create a Link to a Printer-Friendly version of a Report
- Create Faceted Search, Cards and Column Toggle reports
- Save and Print Reports in Different Formats

#### Session 5: USING FILES

- Uploading Images
- Creating Cascading Stylesheet Files
- Uploading Static Files
- Adding an Image as an Application Logo
- Adding a Reference to a Javascript File

#### Session 6: PAGES AND REGIONS

- View Page Attributes in Page Designer
- Edit Page Attributes in Page Designer
- Create a Global Page
- Create a New Region
- View Region Attributes
- Add Comments
- Add a Title
- Add a logo Oracle Application Express 21 (APEX) Training Course Course Contents - DAY 2

#### Session 7: CREATE FORMS

- Web Form Behaviour in APEX
- Create a Form Based on a Table
- Create a Form Based on a Procedure
- Create a Form with a Report
- Create an Editable Interactive Grid
- Format a Form
- Locking in APEX Forms

#### Session 8: CREATING LISTS OF VALUES

- Overview of Application Express Shared Components
- Dynamic and Static Lists of Values
- Create a Dynamic List of Values, query or table-based
- Create a Static List of Values
- Create a list of values using ranges
- Use a List of Values to Control Data in a Report
- Create a Cascading List of Values

#### Session 9: ITEMS AND BUTTONS

- Understand the Different Types of Items
- Create Page Items
- Create Application Items
- Understand and Edit Item Attributes in Page Designer
- Use Javascript with Item
- Create and Edit Buttons

#### Session 10: PAGE PROCESSING

- Page Rendering and Page Processing
- Create Computations
- Validate Input Data
- Process Data
- Understand Application Branching
- Create Conditional Branches

#### Session 11: SHARED COMPONENTS

- Overview of Application Express Navigation Components
- Manage the Navigation Menu
- Create Navigation Bar Entries
- Manage Breadcrumbs
- Create and Use Lists and List Items

#### Session 13: STATE AND DEBUGGING

- Understand Session State
- Set a Session State Value
- Clear the Session State
- Review the Session State
- Review the Messages in Debug Mode
- Enabling Feedback
- Managing Feedback and Team Development

#### Session 14: THEMES AND TEMPLATES

- Switch to a Different Theme
- View Existing Templates
- Understand and Manage Templates
- Create a new Template
- Working with Theme Styles
- Add References to Cascading Stylesheet and Javascript Files Oracle Application Express 21 (APEX) Training Course Course Contents - DAY 4

#### Session 15: DYNAMIC ACTIONS AND PLUG-IN COMPONENTS

- Identify Plug-in Components and their Types
- Plug In a Component
- Create Dynamic Actions
- Use a Plug-in in a Dynamic Action

#### Session 16: IMPLEMENTING SECURITY

- Authentication and Authorization
- Provide an Authentication Scheme
- Create an Authorization Scheme Using Access Control
- Enable and Configure Session State Protection

#### Session 17: DEPLOY AN APPLICATION

- Define Supporting Objects
- Package an Application
- Export an Application
- Import an Application
- Install Supporting Objects

#### Session 18: SAMPLE APPS

- Access the Gallery
- Download and install a Sample App

■ Creating and using Shortcuts Oracle  
Application Express 21 (APEX) Training  
Course Course Contents - DAY 3

Session 12: DISPLAY DYNAMIC CONTENT

- Create Hierarchical Trees
- Creating and editing Charts
- Creating and editing Calendars

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### Further Information:

For More information, or to book your course, please call us on 0800/84.009

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[www.globalknowledge.com/en-be/](http://www.globalknowledge.com/en-be/)