

**Introduction to Oracle Application Express**

**Course Number:** ORC-390  
**Duration:** 3 days

**Overview**

Accelebrate's Introduction to Oracle Application Express (APEX) training teaches attendees how to navigate APEX effectively and understand how to build core components by creating web interfaces including forms, reports, calendars, and charts. Students also learn how to secure their applications and discover best practices and general guidelines.

**Note:** This Apex class is taught using the latest version, however, earlier versions may be used upon request.

**Prerequisites**

Attendees should have an understanding of Oracle SQL and PL/SQL.

**Materials**

All Oracle APEX students receive comprehensive courseware.

**Software Needed on Each Student PC**

* Oracle Application Express 5, 2018, or later
* Each student computer will need a web browser and Oracle SQL Developer installed
* Please contact us for detailed setup instructions if you have purchased this class

**Objectives**

* Understand the capabilities of Oracle APEX
* Use SQL Workshop to execute ad-hoc queries and customize it for optimal use
* Build applications using the Application Builder
* Create pages
* Define regions and items
* Validate form input and perform other page processing tasks
* Share and reuse components, themes, and templates for faster interface creation
* Implement authentication and authorization
* Administer and deploy applications

**Outline**

* Introduction
* Product Overview
  + How to use the page designer and shortcuts it provides
  + How to approach APEX application development
  + APEX architecture and installation decisions
  + How to manage workspaces and applications
  + Efficiently navigating Application Express user interface
  + How to find specific components in a large application
  + Run and modify an application
* SQL Workshop
  + How to manage database objects using The Object Browser
  + Build queries declaratively using the Query Builder
  + Executing ad-hoc SQL and PL/SQL statements using SQL Commands
  + Create scripts to execute multiple related commands
  + Define user interface defaults to save time when creating forms and reports
* Utilities
  + Import and export data in many formats (CSV, TEXT, XML)
  + Understand the health of your instance by using Database Monitor
  + Streamline deployment scripts by generating schema object DDL
  + Extra reports and utilities for modifying components in bulk
* Application Builder
  + Create an application based on a spreadsheet
  + Create an application from scratch
  + Review and edit application objects
  + Quickly navigate the builder by using the Developer Toolbar
  + How to report and chart SQL statements
  + Page rendering and processing overview
  + Create a form and associated report
* Creating Pages
  + Creating and modifying a page
  + Assigning pages to groups
  + The Page Definition screen and page designer mode
  + Different page types ranging from reports, forms, and calendars
  + How to perform an action using page processing
* Regions and Items
  + Create and modify a region
  + Understanding the different region types
  + Create and modify buttons
  + Create and modify items
  + Understand the different item types
  + Conditionally display and run components
  + Customize queries to provide search filters and change display attributes
  + Download the report to a CSV file
* Page Processing
  + How to validate form input
  + Use computations to intelligently modify input
  + Control page flow with branches
  + Gain understanding of APEX URL structure
  + Understanding the relationship between items and session state
  + Introduction to debugging an application
* Shared Components
  + Create a list of links for a better quality of life for users
  + Understand the relationship between breadcrumb component and breadcrumb region
  + Save commonly used lookup values using Lists of values (LOVs)
  + How to organize user navigation using Tabs, navigation bar, breadcrumbs and lists
  + Create processes that perform work for every page
  + Create items for tracking global values suck as USER\_ID or PREVIOUS\_PAGE
  + Avoid hardcoding values by using shortcuts
  + Discuss the possibility of web services
* Themes and Templates
  + Understand how to use the theme repository
  + Learn about the relationship between components and templates
  + How to effectively manage templates using the Subscription model
  + Brief intro to Cascading Style Sheets (CSS)
* Other Page and Region Types
  + Interactive reports
  + Charts for visualizing many data elements
  + Calendars for organizing data by day/week/month
  + Display hierarchical data such as an org chart using a tree region
  + Understand the usefulness of the APEX Global Page (Page Zero) for displaying the same content on multiple pages
* Utilities and Reporting
  + Understand where to find the translation tool
  + How to manage developer files (CSS, JS, and Images)
  + Exporting and importing
* Advanced Development Techniques
  + Identify users using Authentication schemes
  + Define user roles with Authorization schemes
  + Security concerns and how to prevent threats (Cross Site Scripting, SQL Injection)
  + Prevent URL tampering with Session State Protection
  + Introduction to using AJAX
* Administration and Deploying An Application
  + How to prepare applications for deployment
  + Understand Application Express management tools (users, logs, preferences)
  + Provision workspaces to organize applications
  + Define application models for standardizing application creation
* Conclusion