

**Intermediate Oracle Application Express**

**Course Number:** ORC-392  
**Duration:** 3 days

**Overview**

This Intermediate Oracle Application Express (APEX) training teaches attendees how to control behavior among the many different APEX components such as charts, reports, and maps. Students learn how to quickly set up departmental wiki pages using web sheets, as well as integrate team development features to help improve overall application quality assurance.

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

**Prerequisites**

Students should have taken Accelebrate's [Introduction to Oracle APEX Training](file:////training/oracle-application-express-intro) or have the equivalent experience.

**Materials**

All 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**

* Implement APEX best practices
* Create navigation interfaces with tabs, lists, and/or breadcrumbs
* Refine the layout of your regions and items
* Build reports, charts, and tabular forms
* Create custom themes and templates
* Build plugins
* Create dynamic actions
* Preserve session state
* Implement LDAP authentication and prevent SQL injection and cross-site scripting attacks

**Outline**

* Introduction
* APEX Best Practices
  + Customizing the install for easier backups
  + Managing developers and user accounts
  + Securing applications
  + Preventing URL tampering
  + Managing External Files
  + Techniques to Make Development Easier
  + Developing a Standard Application to Copy
* Navigation
  + How to use Tabs, Lists, and Breadcrumbs to connect pages
  + Using components on the global page (page zero)
  + Resolve missing Tabs and Breadcrumbs
* Region and Item Layout
  + How to leverage Grid Layout for Regions and Items
  + Explore how to change region positions
  + Modify templates and their different region positions
  + Understand how page templates work
* Reports
  + Customize report templates
  + Discuss column templates vs row templates
  + Understand generic column vs named column reports
* Charts
  + How to create and manage pie and bar charts
  + Create and edit Gantt charts
  + Finding and using Chart plugins
* Interactive Grid
  + Manually Create Tabular Forms
  + Validation in Tabular Forms
  + Using Collections to enhance tabular forms
* Themes and Templates
  + Creating Custom Themes
  + Creating Custom Templates
  + Using Subscriptions
* Build a plugin
  + Understand how a plugin renders
  + Create an AJAX call and process to update the plugin
  + Bind to the native API so it works with native dynamic actions
* Data Loading
  + Create data upload form for users
  + Process CSV and other delimited data
  + Transform the data upon upload
  + Validate and reject rows
* Dynamic Actions
  + Refresh items and regions
  + Invoke PL/SQL processes from browser events
  + Retrieve data from the DB and set items values
  + Event scope and event delegation
* Working with Files
  + User managed files in the database
  + Developer files on the webserver (JavaScript, css, and images)
  + Upload shared component files
  + Fetch files from a REST service
  + Add thumbnails to a report
* Understanding Session State
  + Understand the difference between persisted and in-memory session state
  + How row fetch and row processing actually works
  + Explore some of the features those processes provide
* Security
  + Custom Authentication and Authorization
  + Implementing LDAP and SSO
  + Using Virtual Private Database (VPD)
  + Using Session State Protection
  + Preventing SQL Injection
  + Preventing Cross-Site Scripting
  + Managing Application Development
* Conclusion