

ORACLE®

Oracle APEX 5.0

Universal Theme & Template Options


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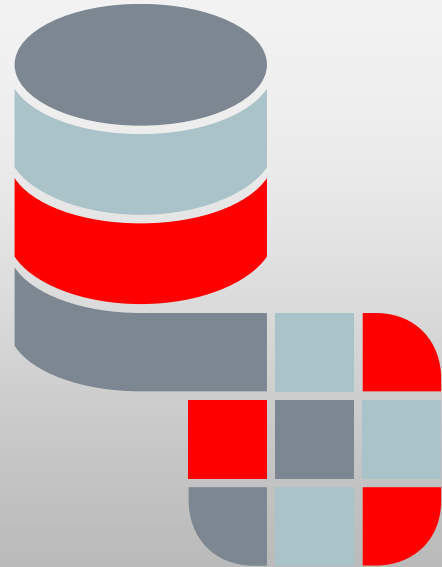


- Working for Oracle in New York since 1998
- Joined Database Tools group in 2002

- Twitter: @msewtz
- APEX on Twitter: #ORCLAPEX
- Blog: <http://marcsewtz.blogspot.com>

Agenda

- APEX Overview
- Modern UI Design with APEX 5.0
- Universal Theme & Template Options

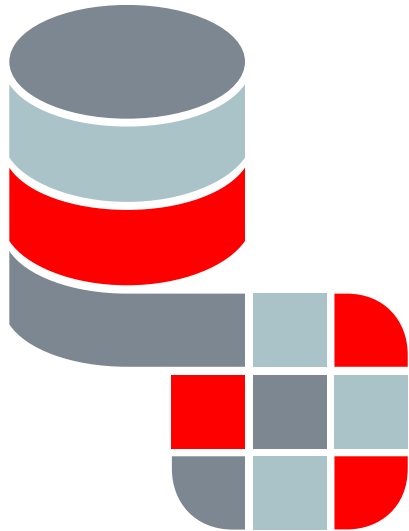


Oracle Application Express

Overview

Oracle Application Express (Oracle APEX)

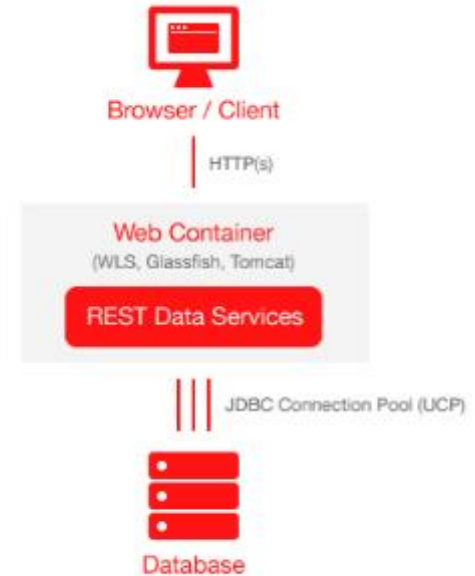
Fully supported no-cost feature of Oracle DB



- Browser-based Development Tool
- Build and deploy Web-based applications for Desktops and Mobile devices
- Distributed with
 - Oracle Enterprise Edition
 - Oracle Standard Edition/ Standard Edition One
 - Oracle XE
- Supported Database Releases
 - 10gR2, 11gR1 and 11gR2, 12c

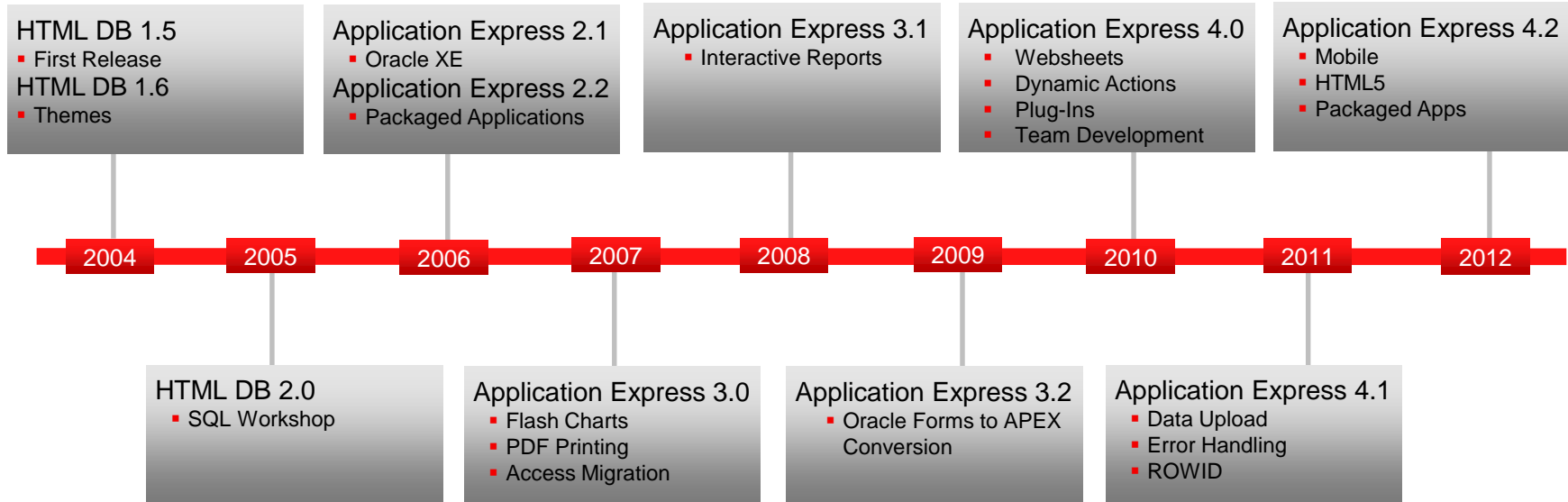
Oracle REST Data Services

- Formerly known as Oracle APEX Listener
- Directs calls to APEX applications to the APEX run-time engine
- Accepts RESTful Web Service call URIs and directs them to the appropriate SQL statement or PL/SQL block
- Marshals data returned from SQL statements into JSON or .csv format



Oracle Application Express (Oracle APEX)

History




Oracle HTML DB

ORACLE 10^g HTML DB
DATABASE

User: TERRI

Workspace TERRI



Applications

Find Rows Find

Application ▲	Name	Page Count	Updated	U
161	Sample Application	17	25 hours ago	te
163	Demo EMP Application	18	3 days ago	te
231	Track Orders Application	9	98 seconds ago	te
416	Application on Table	18	6 seconds ago	te

ORACLE HTML DB

User KRIS

Application Pages Wizards Utilities

Page Region

HTML DB Home > Builder > Application 055 > Page Definition > Create Region

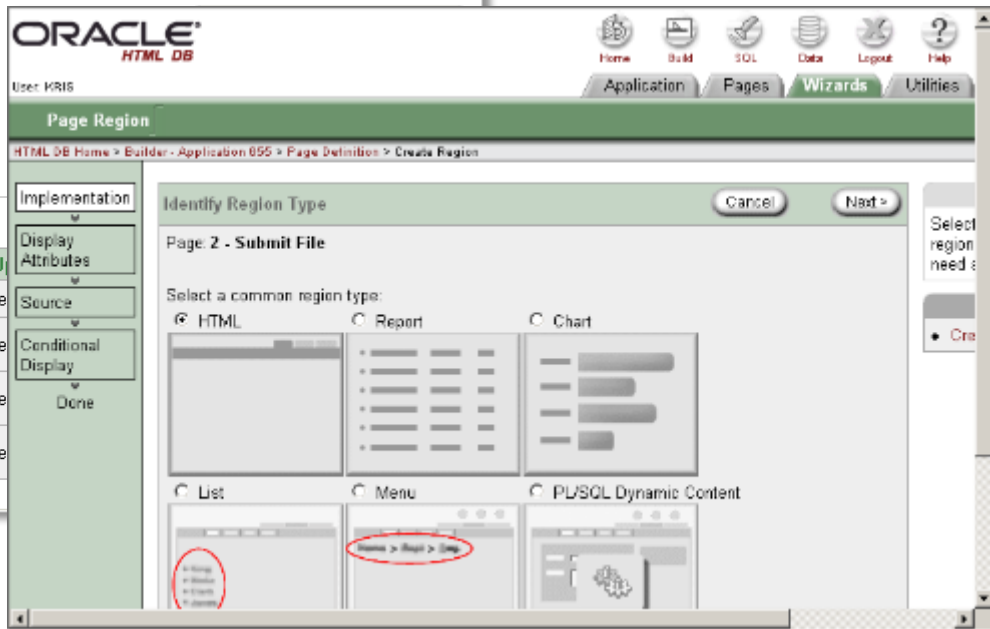
Identify Region Type

Page: 2 - Submit File

Select a common region type:

HTML Report Chart

List Menu PL/SQL Dynamic Content



Oracle Application Express 3.0

The screenshot displays the Oracle Application Express 3.0 interface. At the top, the title bar reads "ORACLE Application Express" with "Logout" and "Help" links. Below the title bar, a breadcrumb trail shows "Home > Application Builder > Application 359". The main content area is titled "Application 359 - Sample Application" and contains four large icons: "Run Application" (traffic light), "Supporting Objects" (flowchart), "Shared Components" (airplane and padlock), and "Export / Import" (cylinder and arrows). Below these icons is a search bar for "Page" and a "Create Page >" button. At the bottom, there are five document icons labeled "0 - Page Zero", "1 - Simple Application", "2 - Customers", "3 - Products", and "4 - Orders". A "Tasks" panel on the right lists: "Delete this Application", "Copy this Application", "Page Groups", and "Page Locks".

This screenshot shows the "Home" section of the Oracle Application Express 3.0 interface. The title bar includes "ORACLE Application Express" and a "Home" button. The main area features three large icons: "Application Builder" (stack of papers), "SQL Workshop" (SQL prompt and gear), and "Utilities" (cylinder and arrows). A dropdown menu is open under the "Application Builder" icon, listing the following options: "Create Application" (highlighted with a mouse cursor), "View Applications", "Demonstrations", "Application Administration" (with a right-pointing arrow), and "Import" (with a right-pointing arrow).

Oracle Application Express 4.0

ORACLE Application Express

Welcome ADMIN (Logout)

Home Application Builder SQL Workshop Team Development Administration Search Workspace

Workspace PTS Learn more ...

Application Builder SQL Workshop Team Development Administration

News 1

About

Application Express is a rapid Web application development tool that lets you share data and create applications. Using only a Web browser and limited programming experience, you can develop and deploy applications that are fast and secure.

Available Updates

System is up-to-date

Welcome ADMIN (Logout)

Manage Workspaces

Manage Requests Manage Instance Manage Workspaces Monitor Activity

Oracle Application Express 4.2

ORACLE Application Express

Home Application Builder SQL Workshop Team Development Administration

To review the Feature Descriptions go here. To review feedback (including that from FA1) go here.

Application Builder SQL Workshop Team Development

News

Top Applications Top Users

ORACLE Application Express

Welcome ADMIN (Logout)

Home Manage Requests Manage Instance Manage Workspaces Monitor Activity

Search

Instance Administration Create Workspace

Manage Requests Manage Instance Manage Workspaces Monitor Activity

No system message defined

Pending Requests

This instance is running in manual provisioning mode, so it will not be accepting service requests

Workspace Summary

Workspace Summary	
Workspaces	0
Schemas	0
Applications	0
Users	1

Administration

Use this page to access and perform administration tasks for an entire Oracle Application Express Instance.

Provisioning

Manual

Instance Tasks

Feature Configuration

Security

Instance Settings

Workspace Purge Settings

Workspace Tasks

Create Workspace

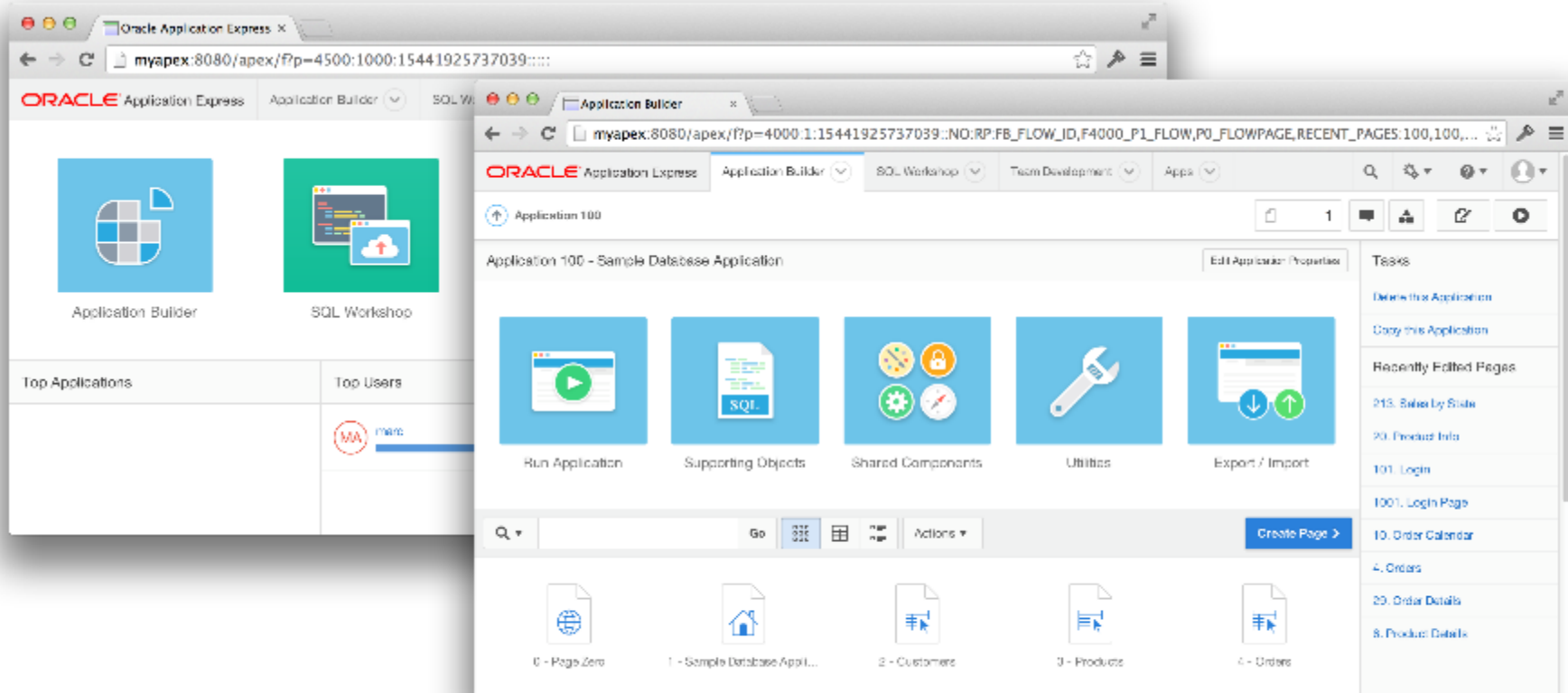
Create Multiple Workspaces

Features 0

To do's 0

Milestones 0

Oracle Application Express 5.0

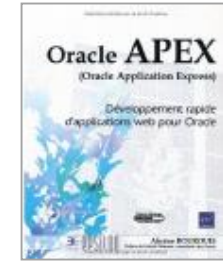
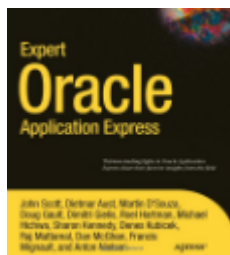
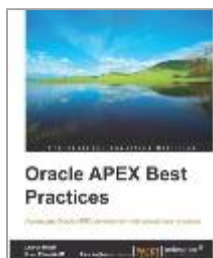


Oracle Application Express (Oracle APEX)

Community – Twitter #ORCLAPEX

- Estimated 400,000 developers worldwide
- Over 120 consulting companies worldwide
- Over 75 bloggers
- One of the most popular forums on OTN
- Web sites dedicated to plug-ins, themes, tools

Oracle Application Express (Oracle APEX)



APEX 5.0

Modern UI Design

Page Designer

- Create and edit page elements within a single page design view
- No need for different edit screens to edit different components
- Highly configurable user interface:
 - Customize and refine view of page specific to current focus
 - Slideable panels
 - Hide / show groupings
 - Zoom



Page Designer

apexcentral.us.oracle.com:7778/apex/f?p=4000:4500:6345258053598::NO::

ORACLE Application Express Application Builder SQL Workshop Team Development Apps

Application 8950 Page Designer

Rendering

Page 6: Product Details

Pre-Rendering

Regions

- Wizard Body
- Body 2
 - Product Details
 - Attributes
 - Items
 - P6_PRODUCT_ID
 - P6_PRODUCT_NAME
 - P6_PRODUCT_DESCRIPTION
 - P6_CATEGORY
 - P6_PRODUCT_AVAIL
 - P6_LIST_PRICE
 - P6_PRODUCT_IMAGE
 - P6_TAGS
 - P6_BRANCH
 - Sub Regions
 - Product Image

Dynamic Actions

Processing

Page Shared Components

Grid Layout Messages Page Search Help

Product Details

Edit Close Create Copy

Items

- P6_PRODUCT_NAME
- P6_PRODUCT_DESCRIPTION
- P6_CATEGORY

Gallery

Regions Items Buttons

Breadcrumb Calendar Calendar (Template) Chart Classic Report Classic Report (based on Function) CSS Bar Chart (Plug-In)

Data Upload Column Mapping Flot Bar Chart v2 (Plug-In) Flot Pie Chart v2 (Plug-In) Help Text HTML5 Bar Chart (Plug-In) Interactive Report List

Property Editor - Page

Identification

Name

Product Details

Title

Sample Database Application - Product Det

Page Group

Desktop

Appearance

User Interface

Desktop

Page Mode

Modal

Template Options

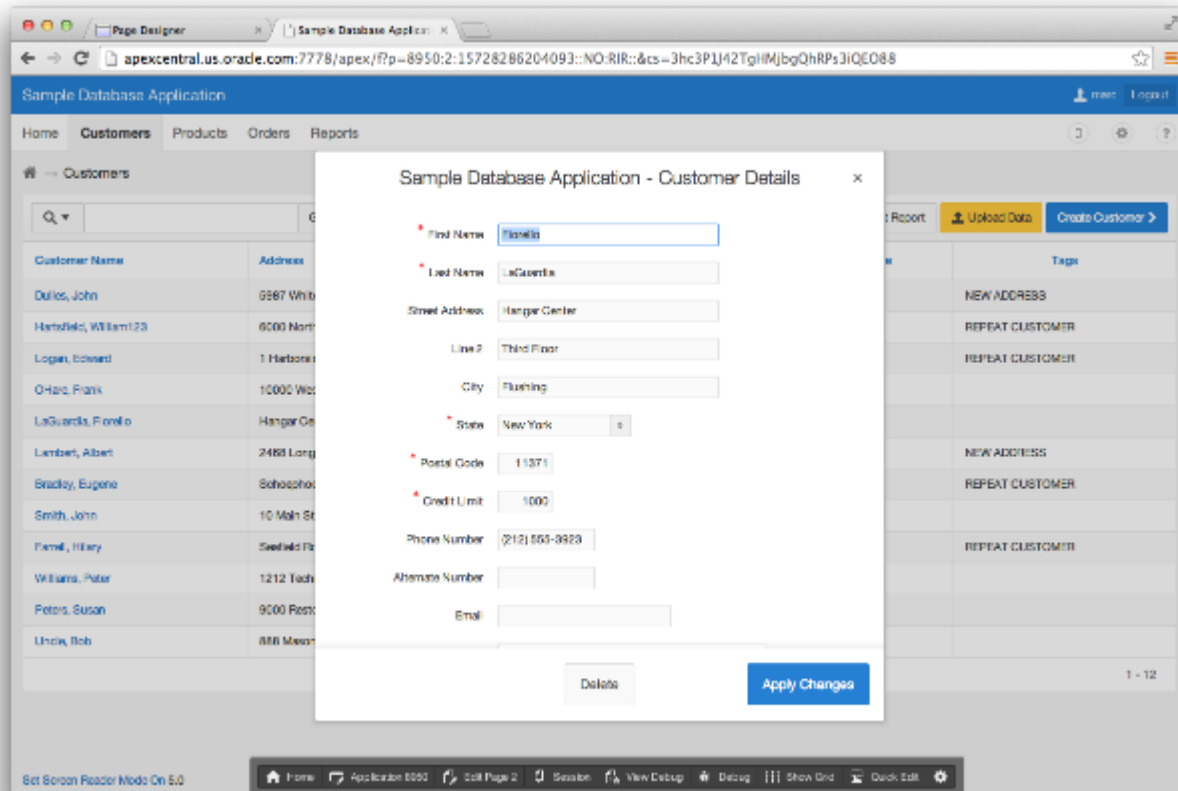
Use Template Defaults

CSS Bar Chart (Plug-In) No help text available.

Modal Dialogs

- Replacement for old-style popup Windows
- A modal dialog is a stand-alone page and not a region on a page
- Any APEX can page be created as a dialog, which can be rendered modal and non-modal
- Support for all the functionality of a normal page, including computations, validations, processes, and branches

Modal Dialogs

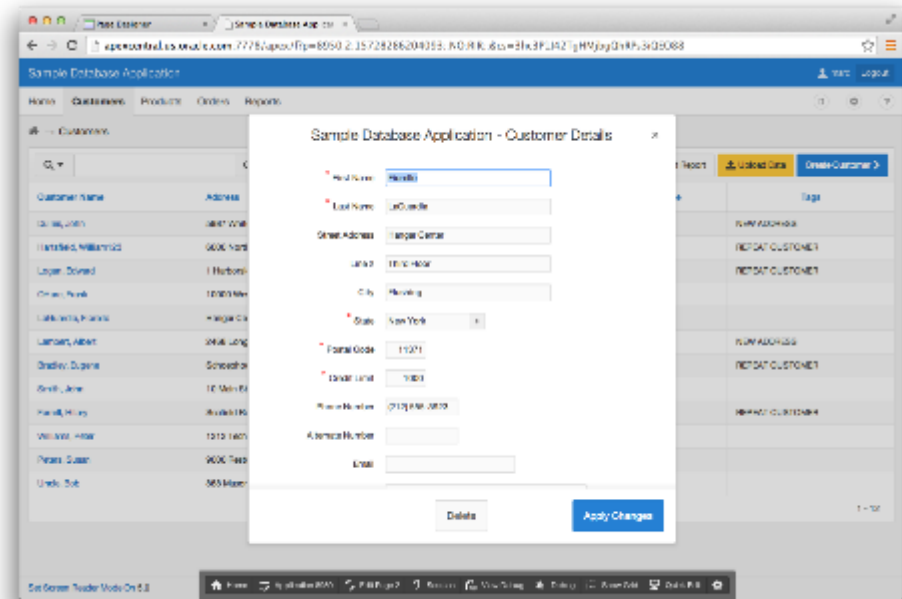


Modal Dialogs

- Support for Desktop and Mobile User Interfaces
- Fully Accessible
- Customizable dimensions and positioning
- Dialog pages can branch to full pages (close dialog) or other dialog pages (e.g. wizard)
- Dialog pages can open other dialogs (stacked dialogs)

Interactive Report Enhancements

- Allow multiple Interactive Reports to be defined on a single page
- Modal dialogs instead of “push-down” dialogs
- Reduce weight without reducing accessibility
- Freeze column headers
- Pivot View

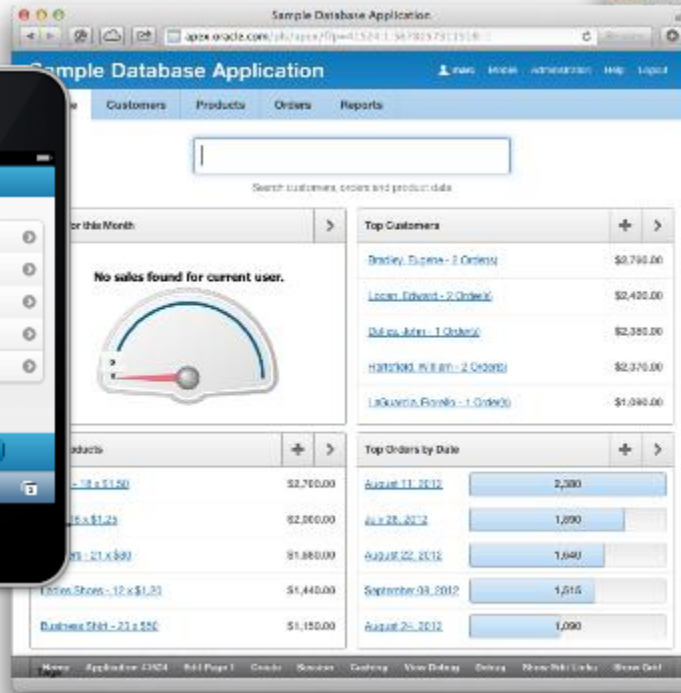
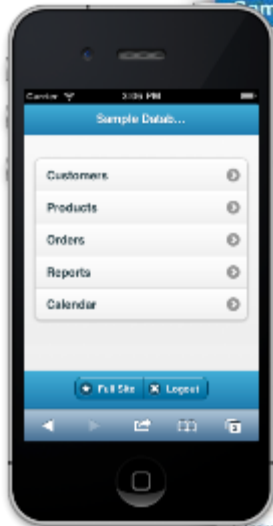


CSS Calendars

- New calendar region type
- Based on Full Calendar jQuery Plug-In
- Provides full-size calendar with monthly, weekly, daily and list view
- Support duration based events with start and end date
- Drag & drop capabilities allow for rescheduling of events
- Customization of look & feel through CSS

Responsive Web Design

Provide optimal viewing experience across a wide range of devices



Responsive Web Design

Responsive Web Design	Mobile Optimized / jQuery Mobile
Same page runs on all devices	Separate Desktop and Mobile pages
Large HTML pages and large static files (CSS, JS, images)	Light weight HTML and small static file content (CSS, JS, images)
Standard browser support, no built-in support for device specific events	Out of the box support for touch events, orientation change, native controls, etc.
Advanced HTML and CSS skills required to develop truly responsive pages	Wizard generated mobile list view, report, form and chart pages require very little HTML knowledge to develop
Well suited for marketing pages, public home pages, content catalogs, etc.	Easier and faster to use for productivity applications, like customer management apps, business intelligence tools or inventory systems

jQuery Mobile

jQuery Mobile Philosophy

- One Code Base, All Platforms
- Works everywhere
- Built on standards
- Built on top of jQuery Core



Mobile Development with APEX 5.0

- Declarative support for building mobile web applications
- APEX Applications support multiple user interfaces:
e.g. Desktop, Smartphone, Tablet
- Mobile pages use jQuery Mobile through
jQuery Mobile based theme and templates
- HTML5 charts and HTML5 item types



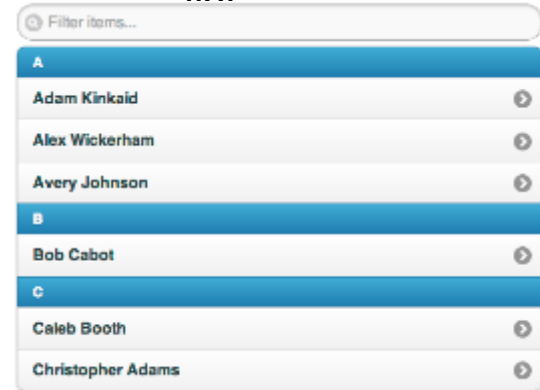
Mobile Development with APEX 5.0

List View Region Type

- Un-ordered list with data-role="listview"
- Used for data display, navigation, list view and form pages, etc.
- Full width by default with inset option
- Automatic dividers
- Declarative search filter
- Client and server-side search options



Simple list



Divided, filterable list

Mobile Development with APEX 5.0

Responsive Table: Column Toggle

- Selectively hides columns at narrower widths as a sensible default
- Offers a menu to let users manually control which columns they want to see
- Column Toggle Popup contains a dynamically generated list of columns based on the table markup



The screenshot shows a table with a column toggle popup. The table has a header row with 'Movie Title' and a data row with 'Citizen Kane'. The popup menu is open, showing four options: 'Rank' (unchecked), 'Year' (unchecked), 'Rating' (checked), and 'Reviews' (unchecked). The table data includes 'Casablanca' (97%), 'The Godfather' (97%), 'Gone with the Wind' (96%), and 'Lawrence of Arabia' (94%).

Movie Title	
Citizen Kane	
Casablanca	97%
The Godfather	97%
Gone with the Wind	96%
Lawrence of Arabia	94%

Mobile Development with APEX 5.0

Responsive Table: Reflow

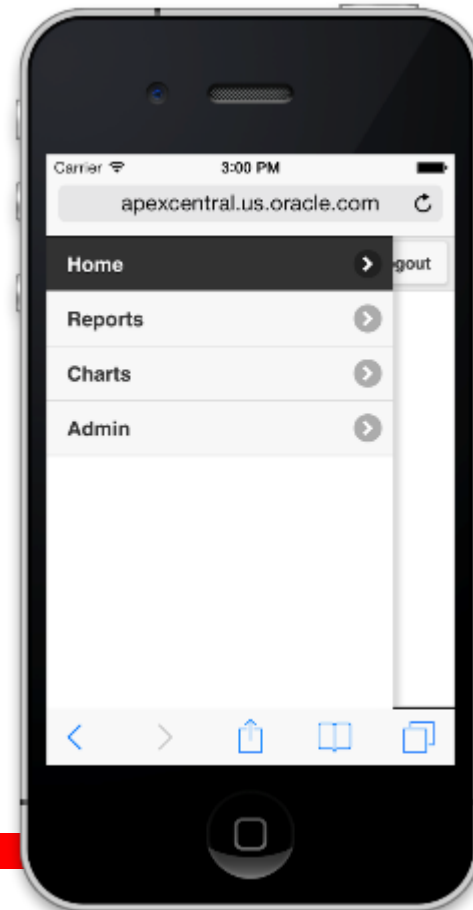
- Collapsing table into label/data pairs for each row
- Stacked presentation style default
- Media query used to switch to tabular style presentation above a specific screen width

Rank	Movie Title	Year	Rating	Reviews
1	Citizen Kane	1941	100%	74
2	Casablanca	Rank	1	
3	The Godfather	Movie Title	Citizen Kane	
4	Gone with the	Year	1941	
5	Lawrence of A	Rating	100%	
		Reviews	74	
		Rank	2	
		Movie Title	Casablanca	
		Year	1942	
		Rating	97%	
		Reviews	64	

Mobile Development with APEX 5.0

Panels

- Can be used for navigation, forms, inspectors and more
- Sibling to the header, content and footer elements
- Left and Right panels
- Overlay
- Reveal



Static files / Relative URL references

- Support for zip files
- Support for relative file references
- Versioning / Caching
- Theme files

User Interface and Theme Updates

- Improve native capabilities for handling HTML5 constructs.
- New HTML5 input types
- Improved HTML5 Charting
- Incorporate more CSS3 instead of images / sprites
- Use CSS3 animations for transitions, etc.
- Navigation Lists
- Remove non-conforming HTML from the APEX engine and modern themes

Universal Theme

- APEX 5 will default to new, modern HTML5 based theme
- Theme styles will be available to apply different color schemes
- Preferred way to customize theme will be through CSS, i.e. creating custom theme styles
- Old themes will continue to be included as legacy themes



Template Options

- Declarative selection of CSS modifiers
- Available for most template types:
 - Page, Region, Report, Breadcrumb, List, Item, Button
- Allows to declaratively apply styles like borders, padding, icons, colors, size, etc
- Significantly reduce the number of required templates



Demo: Universal Theme



Hardware and Software

ORACLE

Engineered to Work Together