Designing the Oracle Store with Oracle Application Express

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Agenda

- Oracle Application Express Overview
- Oracle Store Overview
- Web Presentation Techniques
- Oracle APEX User Interface Design
- Designing and building the Oracle Store UI
Oracle Application Express

Overview
Oracle Application Express Overview

- Unique Rapid Application Development (RAD) tool for the Oracle Database
- Browser based for Development, Deployment and Use
- Allows to declaratively build professional Web 2.0 applications that are fast and secure
- Leverages full Oracle database capabilities and existing SQL & PL/SQL skills
- Standard component of the database
- Fully supported, “no-cost” option with all editions of the Oracle Database

Easy to develop • Easy to deploy • Easy to manage
Oracle Application Express Overview

**Data-driven Applications**
Develop opportunistic and departmental productivity applications

**Oracle Forms Modernization**
Leverage SQL & PL/SQL declarative programming skills to move Forms applications to HTML / Web 2.0

**Online Reporting**
Build SQL-based reporting applications on existing database schemas

**Spreadsheet Web-ification**
Convert spreadsheets to Web applications where they can be concurrently viewed and edited

**Access Replacement**
Consolidate outgrown Access applications to the Oracle database with an APEX Web front end
Oracle Application Express Overview

Web Browser

Web Listener

Oracle Database with Oracle Application Express

Meta Data
Oracle Store Overview
Oracle Store Overview

• Online Store launched in April 2009
• Intuitive user interface
• Incorporates best practice e-commerce capabilities
• Multilingual
• Multicurrency
• Current product categories:
  • Oracle Enterprise Linux
  • Oracle VM
  • … more to come
Oracle Store Homepage
Demonstration

Oracle Store
Web Presentation Techniques
Web Presentation Techniques

• XHTML

  • Extensible Hypertext Markup Language
  
  • Conforms to XML syntax, same depth of expression as HTML
  
  • Three formal DTDs for XHTML 1.0
    Corresponding to the three different versions of HTML 4.01:

    • XHTML 1.0 Strict (equivalent to strict HTML 4.01)
      includes elements and attributes that have not been marked
      deprecated in the HTML 4.01 specification

    • XHTML 1.0 Transitional (equivalent of HTML 4.01 Transitional)
      includes the presentational elements (such as center, font and strike)
      excluded from the strict version

    • XHTML 1.0 Frameset (the equivalent of HTML 4.01 Frameset)
      allows for the definition of frameset documents
Web Presentation Techniques

• CSS
  • Cascading Style Sheets
  • Separation of the content of a web page from its presentation
  • Colors, fonts, alignment, layout, etc are defined in a CSS file rather than in the directly in the HTML/XHTML document
  • Allows for presenting page content in different styles
  • Content readable on a variety of different devices including screen readers
• Table-less Web Design
  • Web design without using HTML tables for page layout
  • CSS are used to arrange elements
  • CSS Introduced by the World Wide Web Consortium (W3C) to:
    ◦ Improve web accessibility
    ◦ Make HTML code semantic rather than presentational
  • Bandwidth Savings
  • Easier Maintainability
    ◦ All of the layout information resides in one place
    ◦ Layout changes without adjusting HTML page
Oracle APEX
User Interface Design
Oracle APEX User Interface Design

• Themes
  • Collections of templates that define the layout of an application
  • Accommodate every UI pattern that may be needed
  • Organized by type (breadcrumb, button, calendar, label, list, page, popup list of values, region, and report)
  • Template classes identify the purpose of the each template within a type
  • Quickly change entire look and feel of an application
Oracle APEX User Interface Design

• Page Layout
  • Pages rendered by combining page template and data
  • Page template defines page structure
    • Navigational Components
    • Level of Tabs
    • Sidebars
  • Page content defined in regions
  • Page can have any number of regions
Demonstration

Oracle APEX Templates and Themes
Designing and Building the Oracle Store User Interface
Designing the Oracle Store

- Initial Mock-Ups using Photoshop
  - Using Layers to mimic HTML page structure
  - Re-use layers to create mock-ups for different pages
- Photoshop images transformed to static HTML
- New Oracle APEX theme created based on static HTML
Designing the Oracle Store

- Page Structure

```html
<div id="main"/>
  <div id="left-sidebar",#REGION_POSITION_01#</div>
  <div id="body">
    <div id="two-col">
      <div id="right-sidebar">
        #REGION_POSITIION_02##BOX_BODY#
      </div>
      <div id="content">#REGION_POSITION_03#</div>
    </div>
  </div>
</div>
```
Designing the Oracle Store

- Rounded Corner Regions

```html
<div class="region">
  <h2>Sample Region</h2>
  <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.</p>
</div>
```

```css
.region     { background: url(bg-menu.gif); margin: 8px 0 0; overflow: hidden; width: 183px; }

.region div { background: url(bg-menu-b.gif) no-repeat 0 100%; padding: 0 0 4px; }

.region h2  { background: url(bg-h3.gif); margin: 0; width: 183px; height: 26px; overflow: hidden;line-height: 26px; text-indent: 11px; font-size: 11px;color: #000; }
```
Designing the Oracle Store

• Category Menu using CSS Sprites

```html
<div class="menu">
  <div>
    <h3>Product Categories</h3>
    <ul>
      <li><a href="/virtualization">Virtualization</a></li>
      <li><a href="/linux">Enterprise Linux</a></li>
    </ul>
  </div>
</div>
```

```css
.menu a { background: url(bg-nav.gif) no-repeat 0 -22px;}
.menu .active a, .menu a:hover {
  background: url(bg-nav.gif) no-repeat 0 0;}
```
Demonstration
Designing the Oracle Store