Building Database-Centric Web Applications Using Oracle HTML DB
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Oracle University
Session Objectives

- Overview of Oracle HTML DB
- Identify advantages of Oracle HTML DB for building applications
- List h/w and s/w requirements
- List key features
- Identify components and capabilities
What Is Oracle HTML DB?

- New feature in Oracle Database 10g
- Browser-based application development tool that resides in the Oracle database
- Environment to develop browser-based Web applications that are database-centric
Benefits of using HTML DB

- Easy-to-use application development environment
- Short learning curve for SQL and PL/SQL programmers
- Simple, self-contained architecture
- Flexible look-and-feel options provided by themes and templates
- Platform-independent environment
Tracking Application (Sample 1)
Business Intelligence Application (Sample 2)
## Text-search Application (Sample 3)

<table>
<thead>
<tr>
<th>Hit</th>
<th>Subject</th>
<th>Last Updated</th>
<th>First Asked</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><code>how to access variable</code></td>
<td>19 Apr 2004</td>
<td>21 Aug 2002</td>
<td>1.7 years old</td>
</tr>
<tr>
<td>2.</td>
<td><code>snapshot too old error</code></td>
<td>19 Apr 2004</td>
<td>05 Jun 2000</td>
<td>3.9 years old</td>
</tr>
<tr>
<td>3.</td>
<td><code>Generating XML without converting '&amp;' to 'amp.'</code></td>
<td>19 Apr 2004</td>
<td>02 Jun 2002</td>
<td>1.9 years old</td>
</tr>
</tbody>
</table>
# Hardware and Software Requirements

<table>
<thead>
<tr>
<th>Component</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database</td>
<td>Oracle 9.2.0.3 or later (Standard or enterprise edition)</td>
</tr>
<tr>
<td></td>
<td>Minimum 512 MB memory</td>
</tr>
<tr>
<td>Web server</td>
<td>Oracle HTTP Server with <code>mod_plsql</code></td>
</tr>
<tr>
<td>Client Web browser</td>
<td>IE 5.5 and above, Netscape 7.0 and above, Mozilla 1.2</td>
</tr>
</tbody>
</table>
HTML DB Architecture

- Browser
- Oracle HTTP Server with mod_plsql
- Oracle HTML DB engine
  - Metadata repository (Application definition)
  - Application schema
- Oracle Database 10g
HTML DB Architecture

Browser

Oracle HTTP Server with mod_plsql

Oracle HTML DB engine

Oracle Database 10g

Metadata repository (Application definition)

Application schema
Defining Roles

Oracle HTML DB

Developer

Workspace administrator

End user

Oracle HTML DB administrator
Understanding Workspaces

Developers:
- A
- B
- C

Oracle HTML DB workspaces:
- Wkspc1
- Wkspc2
- Wkspc3

Database schemas:
- OE
- SH
- HR
Logging In to the Workspace
(Developer)

Gain instant access to an integrated online application development suite. With HTML DB you can build robust dynamic Web applications and leverage the full power of the Oracle database all from your favorite browser.

Login

Workspace: Jonathan
Username: jonathan.swift@oracle.com
Password: ***********

Language: en-us
The Developer Interface
4 Tools-in-1

Application Builder
SQL Workshop
Data Workshop

Development

With HTML DB you can build database-centric HTML Web applications.

Workspace Administration
- Change Password
- Manage Users
- Manage Workspace
- About HTML DB
- Review Demonstration Applications

Workspace Schemas
- HR
4 Tools-in-1

Development

Administration
Data Workshop

With HTML DB you can build database-centric HTML Web applications.

- Change Password
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- Review Demonstration Applications

Workspace Schemas
- HR
SQL Workshop
Application Builder
Data Workshop

Data Workshop

Application Builder  SQL Workshop  Data Workshop

Workspace ORATEST

Applications

Find Rows 10

Application | Name | Page Count | Updated | Updated By | Run
---|---|---|---|---|---
101 | Sample Application v1.6 | 21 | 72 minutes ago | admin | Run

HTML DB

With HTML DB you can build database-centric HTML Web applications.

Workspace Administration

- Change Password
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- Review Demonstration Applications

Workspace Schemas

- HR
Data Workshop

Oracle Database 10g

Import data

Exported data

Import

Export
Importing Text Data

Data Import

- Import Text Data
- XML Import
- Import Spreadsheet Data

Data Export

- Export Text Data
- XML Export
# Importing Spreadsheet Data

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>COUNTRY_CODE</td>
<td>B</td>
</tr>
<tr>
<td>2</td>
<td>AR</td>
<td>Argentina</td>
</tr>
<tr>
<td>3</td>
<td>AU</td>
<td>Australia</td>
</tr>
<tr>
<td>4</td>
<td>BE</td>
<td>Belgium</td>
</tr>
<tr>
<td>5</td>
<td>BR</td>
<td>Brazil</td>
</tr>
<tr>
<td>6</td>
<td>CA</td>
<td>Canada</td>
</tr>
<tr>
<td>7</td>
<td>CH</td>
<td>Switzerland</td>
</tr>
<tr>
<td>8</td>
<td>CN</td>
<td>China</td>
</tr>
<tr>
<td>9</td>
<td>DE</td>
<td>Germany</td>
</tr>
<tr>
<td>10</td>
<td>DK</td>
<td>Denmark</td>
</tr>
<tr>
<td>11</td>
<td>EG</td>
<td>Egypt</td>
</tr>
<tr>
<td>12</td>
<td>FR</td>
<td>France</td>
</tr>
<tr>
<td>13</td>
<td>HK</td>
<td>HongKong</td>
</tr>
<tr>
<td>14</td>
<td>IL</td>
<td>Israel</td>
</tr>
<tr>
<td>15</td>
<td>IN</td>
<td>India</td>
</tr>
<tr>
<td>16</td>
<td>IT</td>
<td>Italy</td>
</tr>
<tr>
<td>17</td>
<td>JP</td>
<td>Japan</td>
</tr>
<tr>
<td>18</td>
<td>KW</td>
<td>Kuwait</td>
</tr>
<tr>
<td>19</td>
<td>MX</td>
<td>Mexico</td>
</tr>
</tbody>
</table>
SQL Workshop

Browser

SQL Workshop

Manage database

Oracle Database 10g
Navigating Through SQL Workshop

SQL Workshop

SQL Command Processor   User Interface Defaults   Create Object

Database Browser

Tables   Indexes   Views   Synonyms   Sequences   Database Links

Packages   Procedures   Functions   Triggers   Java Sources   Java Classes

Types   XML Schema

SQL Scripts

Scripts   Script Control   Generate DDL

Tasks
- Manage Recycle Bin
- View SQL History
- Manage SQL Archive
- Drop Database Object
- Explain Plan
- Query Data Dictionary
Navigating Through SQL Workshop

ORACLE DATABASE 10g HTML DB

Workspace TONE > SQL Workshop

SQL Workshop

Use SQL Workshop to view and manage database objects from a Web browser.

Use SQL Workshop to access SQL Command Processor, User Interface Defaults, and Create Database Object wizards.

Use Database Browser to view existing database objects.

Use SQL Scripts to manage script files and control files as well as generate DDL (data definition language) statements.

Tasks
- Manage Recycle Bin
- View SQL History
- Manage SQL Archive
- Drop Database Object
- Explain Plan
- Query Data Dictionary

Database Browser

- Tables
- Indexes
- Views
- Synonyms
- Sequences
- Database Links
- Packages
- Procedures
- Functions
- Triggers
- Java Sources
- Java Classes
- Types
- XML Schema

SQL Scripts

- Scripts
- Script Control
- Generate DDL

Breadcrumbs menu
Navigating Through SQL Workshop

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- Manage Recycle Bin
- View SQL History
- Manage SQL Archive
- Drop Database Object
- Explain Plan
- Query Data Dictionary

Database Browser

SQL Scripts

Task list

Breadcrumb menu
Navigating Through SQL Workshop

Workspace TONE > SQL Workshop

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Tasks
- Manage Recycle Bin
- View SQL History
- Manage SQL Archive
- Drop Database Object
- Explain Plan
- Query Data Dictionary

Task list

Page-level help

Breadcrumb menu
SQL Command Processor

**SQL Statement (All statements are auto committed.)**

```
SELECT * FROM COUNTRIES
```

**SQL Query Results**

<table>
<thead>
<tr>
<th>COUNTRY_ID</th>
<th>COUNTRY_NAME</th>
<th>REGION_ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR</td>
<td>Argentina</td>
<td>2</td>
</tr>
<tr>
<td>AU</td>
<td>Australia</td>
<td>3</td>
</tr>
<tr>
<td>BE</td>
<td>Belgium</td>
<td>1</td>
</tr>
<tr>
<td>BR</td>
<td>Brazil</td>
<td>3</td>
</tr>
</tbody>
</table>
Creating DB Objects (gui)

SQL Workshop

SQL Command Processor  User Interface Defaults  Create Object

Create Database Object

Select the type of database object you wish to create:

- Function
- Index
- Package
- Procedure
- Sequence
- Synonym
- Table
- Trigger
- View
- Database Link
Application Builder

Application Builder

Workspace HTMLDB

HTML DB
With HTML DB you can build database-centric HTML Web applications.

Workspace Administration
- Change Password
- Manage Users
- Manage Workspace
- About HTML DB
- Review Demonstration Applications

Workspace Schemas
- HTMLDB

Applications
Find [ ] Rows [ ] Find

<table>
<thead>
<tr>
<th>Application</th>
<th>Name</th>
<th>Page Count</th>
<th>Updated</th>
<th>Updated By</th>
<th>Run</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Sample Application v1.5</td>
<td>21</td>
<td>2 days ago</td>
<td>admin</td>
<td></td>
</tr>
<tr>
<td>103</td>
<td>HARDWARE TEST</td>
<td>11</td>
<td>43 minutes ago</td>
<td>htmldo</td>
<td></td>
</tr>
<tr>
<td>104</td>
<td>Web Services Demonstration Application</td>
<td>10</td>
<td>10 minutes ago</td>
<td>htmldo</td>
<td></td>
</tr>
</tbody>
</table>
Viewing the Applications in the Workspace

### List of applications

<table>
<thead>
<tr>
<th>Application</th>
<th>Name</th>
<th>Page Count</th>
<th>Updated</th>
<th>Updated By</th>
<th>Run</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Sample Application v1.6</td>
<td>21</td>
<td>2 days ago</td>
<td>admin</td>
<td>✗</td>
</tr>
<tr>
<td>103</td>
<td>HARDWARE TEST</td>
<td>11</td>
<td>43 minutes ago</td>
<td>htmlbd</td>
<td>✗</td>
</tr>
<tr>
<td>104</td>
<td>Web Services Demonstration Application</td>
<td>10</td>
<td>10 minutes ago</td>
<td>htmlbd</td>
<td>✗</td>
</tr>
</tbody>
</table>
Developing the User Interface

You can rapidly design the user interface for your application by using:

- Reports
- Forms
- Charts
- Wizards
- Calendars
- Trees
Business Intelligence Application (Sample 2)
Business Intelligence Application (regions)
Business Intelligence Application (shared components)
Creating an Application

- From the beginning
- Based on an existing application
- Based on an existing table
- Demonstration application
- Based on spreadsheet
- From an application export file
Creating an Application from the Beginning

Steps

Create Application

- Name: My Application
- Alias: 104
- Application: 104
- Authentication: HTML DB Authentication
- Default Parsing Schema: HR
- Pages: 2

Name and authentication
Creating an Application from the Beginning

Steps

Name and Authentication

Tab Style

Parent Tab Names

Page Names

Tab Names

User Interface Theme

Confirm

Create Application Wizard

Application: 104
Name: My Application

Tabs:
- No Tabs
- One Level of Tabs
- Two Levels of Tabs

Tab style
Creating an Application from the Beginning

Steps
- Name and Authentication
- Tab Style
- Parent Tab Names
- Page Names
- Tab Names
- User Interface Theme
- Confirm

Create Application Wizard

Page Page Name
1. Home
2. Report

Page names

Identify Tab Names

Page Tab Name
1. Home
2. Report

Tab names
Creating an Application from the Beginning

Steps

- Name and Authentication
- Tab Style
- Parent Tab Names
- Page Names
- Tab Names
- User Interface Theme
- Confirm

Create Application

Theme:
- Theme 1
- Theme 2
- Theme 4
- Theme 5

Select theme
Creating an Application from the Beginning

Steps

- Name and Authentication
- Tab Style
- Parent Tab Names
- Page Names
- Tab Names
- User Interface Theme

Confirm selections

Create Application Confirmation

You have requested to create an application with the following selections:

<table>
<thead>
<tr>
<th>Application</th>
<th>104</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>My Application</td>
</tr>
<tr>
<td>Alias</td>
<td>104</td>
</tr>
<tr>
<td>Parsing Schema</td>
<td>HR</td>
</tr>
<tr>
<td>Default Language</td>
<td>en-us</td>
</tr>
<tr>
<td>Authentication</td>
<td>(HTML DB Authentication)</td>
</tr>
<tr>
<td>Pages</td>
<td>2</td>
</tr>
<tr>
<td>Tabs</td>
<td>One Level of Tabs</td>
</tr>
<tr>
<td>UI Theme</td>
<td>1</td>
</tr>
</tbody>
</table>

ORACLE
Creating an Application Based on a Spreadsheet

Steps

Load Method
Data
Table Properties
User Interface Defaults
Summary Page
Application Options
User Interface Theme
Confirm

Hardware

Search

<table>
<thead>
<tr>
<th>Serial</th>
<th>Cpu Type</th>
<th>Cpu Speed</th>
<th>Purchase Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>0C8765T</td>
<td>Pentium I</td>
<td>200</td>
<td>09-OCT-98</td>
</tr>
<tr>
<td>0KBU4</td>
<td>Pentium II</td>
<td>1000</td>
<td>12-MAY-01</td>
</tr>
<tr>
<td>1237536YT</td>
<td>Pentium I</td>
<td>165</td>
<td>01-MAR-97</td>
</tr>
<tr>
<td>U09CM2423</td>
<td>Pentium II</td>
<td>667</td>
<td>01-JUN-93</td>
</tr>
<tr>
<td>2DLPI</td>
<td>Celeron</td>
<td>365</td>
<td>01-APR-98</td>
</tr>
<tr>
<td>3U17JEL1345</td>
<td>Pentium II</td>
<td>850</td>
<td>17-AUG-01</td>
</tr>
<tr>
<td>61214246AB</td>
<td>Pentium II</td>
<td>450</td>
<td>14-JUN-01</td>
</tr>
<tr>
<td>54FVDW86</td>
<td>PowerPC 03</td>
<td>800</td>
<td>24-OCT-86</td>
</tr>
</tbody>
</table>

ORACLE
Creating a New Region

Name: Report Page

Regions
Display Point: Page Template Body (3)
- Q: Hardware (20)
Display Point: Region Position 01
- M: BreadCrumb (1)

Buttons
Region: Hardware
- 10: RESET
- 20: CREATE (Redirect)
- Item: P1_GO

Items
Region: Hardware
- 10: P1_CHART_FILTER Hidden
- 10: P1_VALUE Hidden
- 20: P1_REPORT_SEARCH Text Field (always submits page when Enter pressed)
- 30: P1_GO button

Computations

Page Processing
Computations
Validations
Processes
Branches
After Submit
- 1: clear cache
- 1: reset pagination
After Processing
- 10: Go To Page, 1 (Unconditional)

Shared Components
Tabs
Tab Set: TS1
- Hardware
Lists of Values
Menus
- HARDWARE Menu
Lists
Theme
- 1: Red
Templates
- Page: One Level Tabs, 2
- Region: Reports Region
- Region: BreadCrumb Region
- Label: Optional with help
- Button: Button
Creating Interactive Items

- **Pages**
  - Display Point: Page Template Body (3)
  - Q: Hardware (20)
  - Display Point: Region Position 01
  - M: BreadCrumb (1)

- **Regions**
  - Name: Report Page
  - Last Updated: 3 hours ago

- **Buttons**
  - Region: Hardware
    - 10: RESET
    - 20: CREATE (Redirect)
    - Item: P1_GO

- **Items**
  - Region: Hardware
    - 10: P1_CHART_FILTER Hidden
    - 10: P1.VALUE Hidden
    - 20: P1_REPORT_SEARCH Text Field (always submits page when Enter pressed)
    - 30: P1_GO button

- **Computations**
  - After Submit
    - 1: clear cache
    - 1: reset pagination

- **Compositions**
  - Before Processing
    - 10: Go To Page 1
      - (Unconditional)
Input Items (form)

- **Text field**
- **Pop-up Key LOV**
- **Date Picker**
- **Text area**
- **Select list**
- **Radio group**
Creating a Report Linked to a Form

Report

<table>
<thead>
<tr>
<th>Edit</th>
<th>First Name</th>
<th>Last Name</th>
<th>Email</th>
<th>Phone Number</th>
<th>Hire Date</th>
<th>Job Id</th>
<th>Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDIT</td>
<td>Steven</td>
<td>King</td>
<td>SKING</td>
<td>515.123.4567</td>
<td>17-JUN-87</td>
<td>AD_PRES</td>
<td>24000</td>
</tr>
<tr>
<td>EDIT</td>
<td>Lex</td>
<td>Mack</td>
<td>LMACK</td>
<td>48000</td>
<td>06-JUL-87</td>
<td>AD_SALES</td>
<td>17000</td>
</tr>
<tr>
<td>EDIT</td>
<td>Alex</td>
<td>Hunter</td>
<td>AHEUN</td>
<td>42000</td>
<td>06-JUL-87</td>
<td>AD_SALES</td>
<td>9000</td>
</tr>
<tr>
<td>EDIT</td>
<td>Bruce</td>
<td>Allen</td>
<td>BALEN</td>
<td>48000</td>
<td>06-JUL-87</td>
<td>AD_SALES</td>
<td>6000</td>
</tr>
<tr>
<td>EDIT</td>
<td>Dave</td>
<td>Rodriguez</td>
<td>DRODE</td>
<td>48000</td>
<td>06-JUL-87</td>
<td>AD_SALES</td>
<td>4800</td>
</tr>
<tr>
<td>EDIT</td>
<td>Brad</td>
<td>Taylor</td>
<td>BTAYL</td>
<td>42000</td>
<td>06-JUL-87</td>
<td>AD_SALES</td>
<td>4200</td>
</tr>
<tr>
<td>EDIT</td>
<td>Dave</td>
<td>Smith</td>
<td>DSMTH</td>
<td>42000</td>
<td>06-JUL-87</td>
<td>AD_SALES</td>
<td>4200</td>
</tr>
<tr>
<td>EDIT</td>
<td>John</td>
<td>Williams</td>
<td>JWILL</td>
<td>48000</td>
<td>06-JUL-87</td>
<td>AD_SALES</td>
<td>4800</td>
</tr>
<tr>
<td>EDIT</td>
<td>Isma</td>
<td>Johnson</td>
<td>JISON</td>
<td>7700</td>
<td>06-JUL-87</td>
<td>AD_SALES</td>
<td>7700</td>
</tr>
<tr>
<td>EDIT</td>
<td>Jose</td>
<td>Garcia</td>
<td>JGARC</td>
<td>7800</td>
<td>06-JUL-87</td>
<td>AD_SALES</td>
<td>7800</td>
</tr>
</tbody>
</table>

Form

Edit Details

- First Name: Steven
- Last Name: King
- Email: SKING
- Phone Number: 515.123.4567
- Hire Date: 06/17/1987
- Job Id: AD_PRES
- Salary: 24000
Master Detail Form

Steps
- Master Table
- Detail Table
- Primary Key Source
- Master Options
- Layout
- Page Attributes
- Tab
- Confirm

Order #2
- Cancel
- Delete Order
- Save Changes

Customer Info
William Hartsfield
6000 North Terminal Parkway
Atlanta, GA 30320
Order Date: Monday, 13 December, 2004
Order Total: $599.00
Sales Rep: DEMO

Order Items

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Quantity</th>
<th>Unit Price</th>
<th>Extended Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP3 Player [199]</td>
<td>1</td>
<td>$199.00</td>
<td>$199.00</td>
</tr>
<tr>
<td>Classic Projector [50]</td>
<td>2</td>
<td>$50.00</td>
<td>$100.00</td>
</tr>
<tr>
<td>Stereo Headphones [150]</td>
<td>1</td>
<td>$150.00</td>
<td>$150.00</td>
</tr>
<tr>
<td>Stereo Headphones [150]</td>
<td>1</td>
<td>$150.00</td>
<td>$150.00</td>
</tr>
</tbody>
</table>

Order Total: $599.00

Add Item to Order
Building & Testing the application (WYSIWYG)
How does it know?

Request from browser to Web server (Connection 1)

Response from Web server to client

Requests a Web page

Web server responds

Connection lost

Requests a new Web page

New connection to Web server established (Connection 2)

Connection from Web server to client

Web server responds
How Does Oracle HTML DB Implement Session State?

Oracle HTML DB maintains session state implicitly.
Understanding Oracle HTML DB
URL Syntax

Syntax:

Example:
Viewing Session State

Application Environment

<table>
<thead>
<tr>
<th>Application</th>
<th>Page</th>
<th>Item Name</th>
<th>Display</th>
<th>State</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>158</td>
<td>3</td>
<td>P3_ID</td>
<td>Hidden</td>
<td></td>
<td></td>
</tr>
<tr>
<td>158</td>
<td>3</td>
<td>P3_DEPARTMENTNUMBER</td>
<td>Text</td>
<td>1</td>
<td>I</td>
</tr>
<tr>
<td>158</td>
<td>3</td>
<td>P3_DEPARTMENTNAME</td>
<td>Text</td>
<td>sales</td>
<td>I</td>
</tr>
<tr>
<td>158</td>
<td>3</td>
<td>P3_LOCATION</td>
<td>Text</td>
<td>ny</td>
<td>I</td>
</tr>
</tbody>
</table>

Page Items

<table>
<thead>
<tr>
<th>Application</th>
<th>Page</th>
<th>Item Name</th>
<th>Display</th>
<th>State</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>158</td>
<td>3</td>
<td>P3_ID</td>
<td>Hidden</td>
<td></td>
<td></td>
</tr>
<tr>
<td>158</td>
<td>3</td>
<td>P3_DEPARTMENTNUMBER</td>
<td>Text</td>
<td>1</td>
<td>I</td>
</tr>
<tr>
<td>158</td>
<td>3</td>
<td>P3_DEPARTMENTNAME</td>
<td>Text</td>
<td>sales</td>
<td>I</td>
</tr>
<tr>
<td>158</td>
<td>3</td>
<td>P3_LOCATION</td>
<td>Text</td>
<td>ny</td>
<td>I</td>
</tr>
</tbody>
</table>
Referencing Item Values and Getting Session State

You can reference session state by using:

<table>
<thead>
<tr>
<th>Environment</th>
<th>Syntax</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQL</td>
<td>Use bind variable syntax.</td>
<td>:MY_ITEM</td>
</tr>
<tr>
<td>PL/SQL</td>
<td>Use bind variable syntax or ( v ) function.</td>
<td>:MY_ITEM ( v( 'MY_ITEM' ) ) ( nv( 'MY_ITEM' ) )</td>
</tr>
<tr>
<td>Static text</td>
<td>Use &amp;item name followed by period (.)</td>
<td>&amp;MY_ITEM</td>
</tr>
</tbody>
</table>
Page **Processing** and Page **Rendering**

Oracle Database 10g

Assembles page components

Performs computations, processes, validations, branching

HTML DB engine

Show the page (Page Rendering)

Accept the page (Page Processing)
Overview of Templates

- Templates define how the pages or the page components of an application are displayed.
- You can use the following templates:
  - Page
  - Region
  - Report
  - List
  - Label
  - Menu
  - Button
Themes
Securing Your Application

AUTHENTICATION

AUTHORIZATION
Establishing User Identity Through AUTHENTICATION

User 1

Establish user identity from login page

Application

User 2

Establish user identity from login page
## Authentication Schemes

### Select a Preconfigured Authentication Scheme

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Show Built-In Login Page and Use Open Door Credentials</td>
<td></td>
</tr>
<tr>
<td>Show Login Page and Use HTML DB Account Credentials</td>
<td></td>
</tr>
<tr>
<td>Show Login Page and Use LDAP Directory Credentials</td>
<td></td>
</tr>
<tr>
<td>No Authentication (using DAD)</td>
<td></td>
</tr>
<tr>
<td>Oracle Application Server Single Sign-On (HTML DB Engine as Partner App)</td>
<td></td>
</tr>
<tr>
<td>Oracle Application Server Single Sign-On (My Application as Partner App)</td>
<td></td>
</tr>
<tr>
<td>SSO Cookie (my.oracle.com -- Oracle Use Only)</td>
<td></td>
</tr>
</tbody>
</table>

### Information
Implementing Security Through AUTHORIZATION

User 1

Authorized to view all columns of a report

User 2

Denied access to the SALARY column of a report

<table>
<thead>
<tr>
<th>EMPLOYEES</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMPLOYEENAME</td>
</tr>
<tr>
<td>JOB</td>
</tr>
<tr>
<td>MANAGER</td>
</tr>
<tr>
<td>HIREDATE</td>
</tr>
<tr>
<td>SALARY</td>
</tr>
</tbody>
</table>
Workspace Administration

With HTML DB you can build database-centric HTML Web applications.

- Change Password
- Manage Users
- Manage Workspace
- About HTML DB
- Review Demonstration Applications

Workspace Schemas
- HR
Creating a New User

1. Administration Services
   - Manage Users
   - Logs
   - Session State
   - Manage Service

2. Manage Users
   - Create New User
   - Edit Users
   - Change My Password
Monitoring Workspace Utilization

Page Views

- Top Views
  - By User
  - By Application and Page
  - By External Click
  - By Browser

- Page View Statistics
  - By Application
  - By Day and Hour
  - By Recent Views
  - By Weighted Page Performance

Application Changes

- Top Changes
  - By Developer
  - By Application

- Application Change Statistics
  - By Application
  - By Day
  - By Developer
Deploying Your Application by Using Oracle HTML DB Utilities

Application (Development) → Export → Import → Install → Application (Production)
Exporting Your Application

Select Application

- Application: 104 My Application
- File Format: UNIX
- Build Status Override: Run and Build Application

File Character Set: Unicode UTF-8
Importing Your Application

Import File

- Import file: E:\labs\f133.sql
- File Type: Application Export
- File Character Set: Western European Windows 1252

Successfully Imported File

- The export file has been imported successfully.

If you wish to use this file to Install, click **Install >**. Otherwise click **Cancel**.
http://Htmldb.oracle.com

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- Sign up for a free workspace