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Application Express 101

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The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.



Oracle Application Express (APEX)

Database-centric Web application development tool

- Fully supported, “no-cost” component for all editions of the Oracle Database
- Rapid Application Development (RAD)
- Browser based Application Development
- Declaratively build Web 2.0 applications
- Leverages Oracle database, SQL and PL/SQL
- Self Service Provisioning / Private Cloud

Oracle Application Express (APEX)

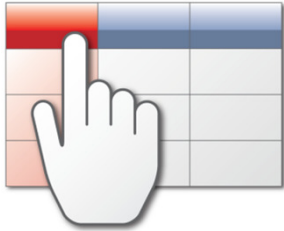
Fully supported no-cost feature of Oracle DB



- Distributed with
 - Oracle Enterprise Edition
 - Oracle Standard Edition
 - Oracle Standard Edition One
 - Oracle XE
- Supported Database Releases
 - 10gR2
 - 11gR1
 - 11gR2

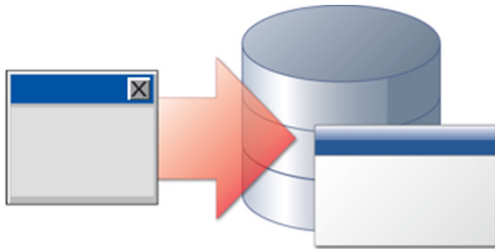
Oracle Application Express (APEX)

Rapid Application Development (RAD)



Data-driven Applications

Develop opportunistic and departmental productivity applications with Robust Online Reporting



Oracle Forms Modernization

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

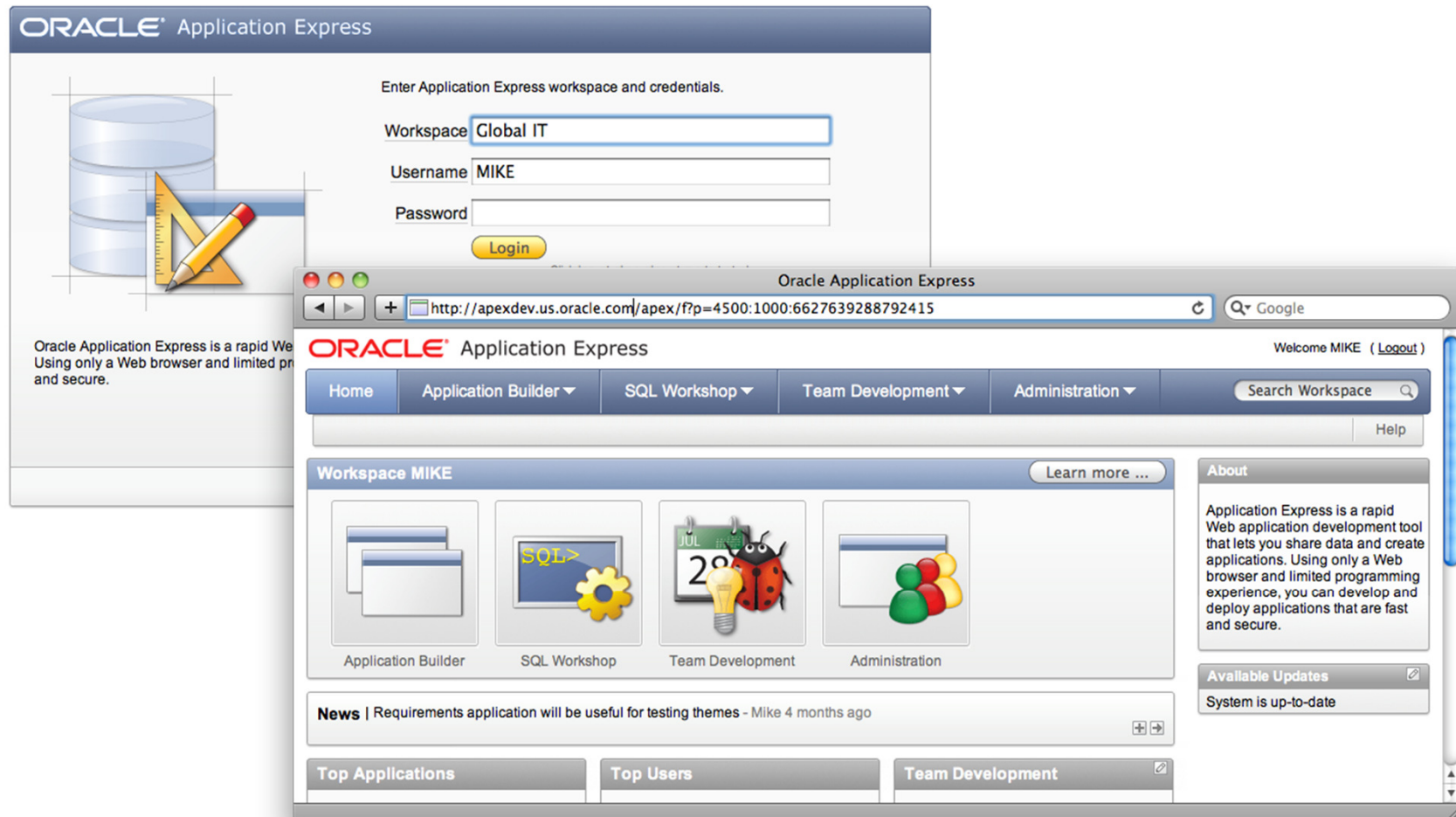


Spreadsheet / Access Replacement

Convert spreadsheets and access applications to Web applications

Oracle Application Express (APEX)

Browser Based Application Development



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Oracle Application Express (APEX)

Declaratively build Web 2.0 Applications

The screenshot displays the Oracle Application Express (APEX) Page Definition interface in a web browser. The browser's address bar shows the URL: `http://apexdev.us.oracle.com:5555/apex/f?p=4000:4150:6627639288792415::NO::`. The page title is "Page Definition".

The interface includes a top navigation bar with the Oracle logo and the text "Application Express". A user greeting "Welcome MIKE (Logout)" is visible in the top right. The navigation bar contains tabs for "Home", "Application Builder", "SQL Workshop", "Team Development", and "Administration". A search bar labeled "Search Application" is also present.

Below the navigation bar, a breadcrumb trail shows the path: "Home > Application Builder > Application 2120 > Page 2". The current page is identified as "Page 2".

The main workspace is divided into three panels:

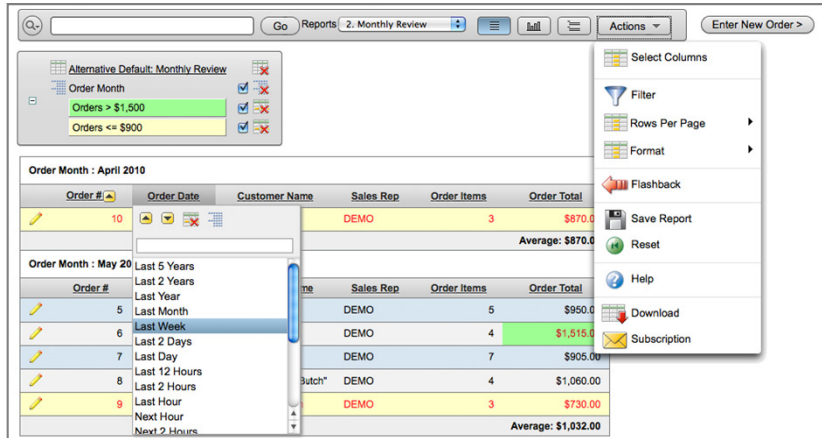
- Page Rendering:** This panel shows a tree structure of the page's rendering process. It includes sections for "Customers", "Before Header", "After Header", "Before Regions", "Regions", "Body (3)", "After Regions", "Before Footer", "After Footer", and "Dynamic Actions". The "Body (3)" section is expanded, showing "Customers", "Report Columns", and "Region Buttons".
- Page Processing:** This panel shows the page's processing flow. It includes sections for "After Submit", "Validating", "Processing", "After Processing", and "AJAX Callbacks". The "Processing" section is expanded, showing "Branches", "Processes", "ApplyMRU", and "ApplyMRD".
- Shared Components:** This panel shows a list of shared components available for the page, including "Parent Tabs", "List of Values", "Breadcrumbs", "Lists", "Templates", and "Security".

At the bottom of the interface, there is a status bar with the text "Workspace: MIKE User: MIKE" and "Language: en | Copyright © 1999, 2010, Oracle. All rights reserved.".

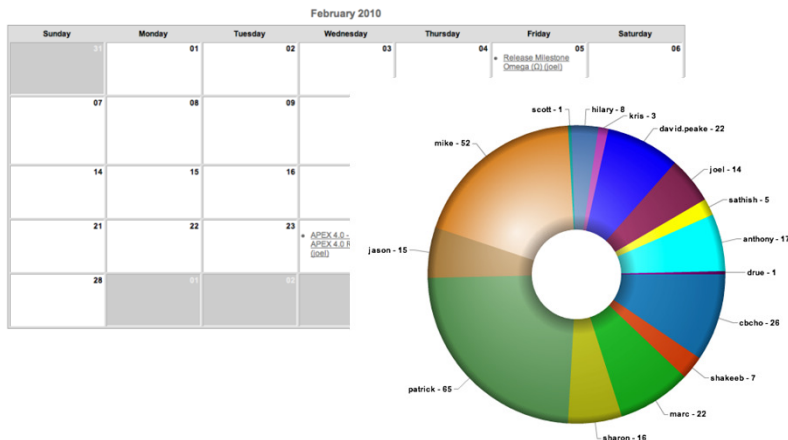
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Oracle Application Express (APEX)

Leverage Oracle Database SQL and PL/SQL



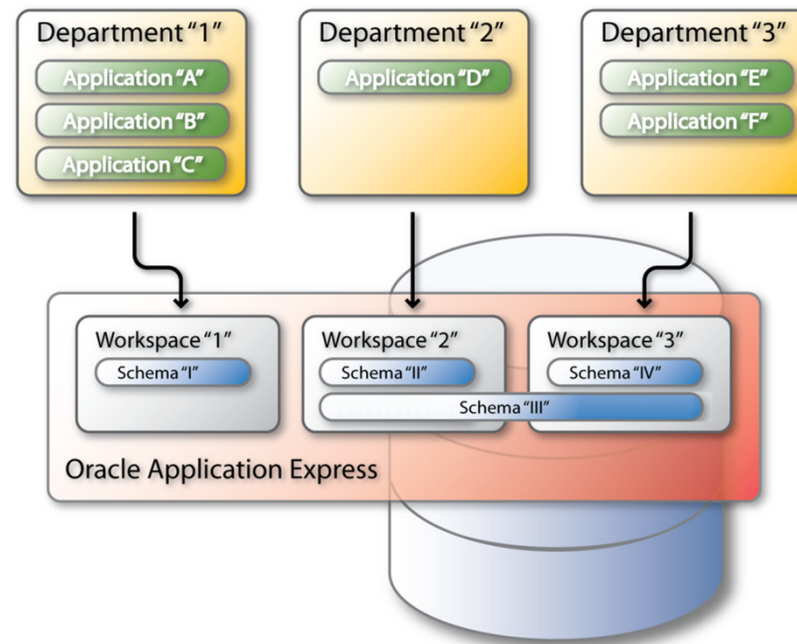
- Reports
- Calendars
- Charts
- Application Logic



```
Select channel,  
       sum(sales)  
from sales  
where quarter = :b1  
group by channel
```

Oracle Application Express (APEX)

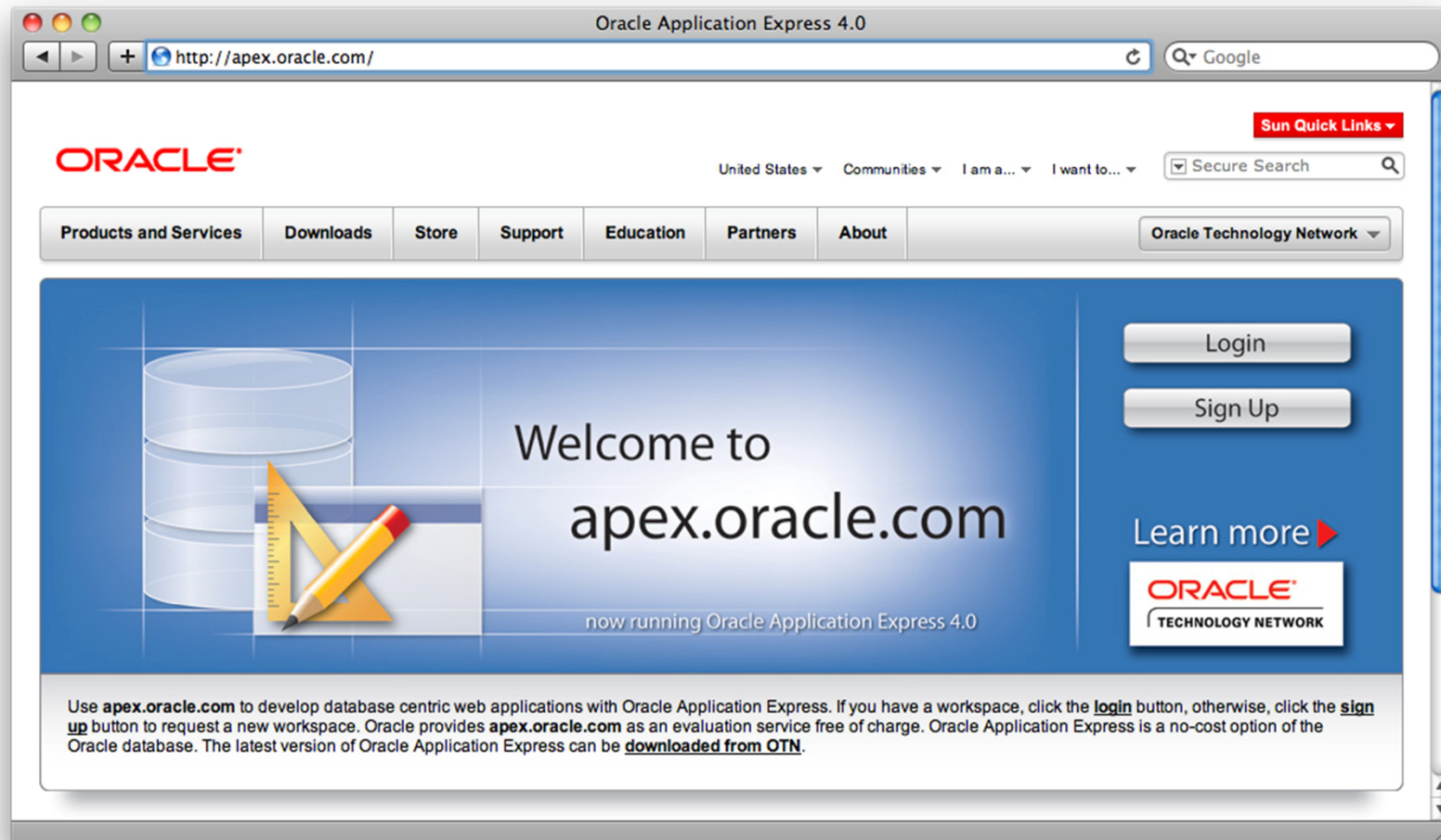
Self Service Provisioning / Private Cloud



- Allows IT to manage Database services
- Self-service provisioning of workspaces for Departments
- Private Cloud ready out of the box

http://apex.oracle.com

Free cloud based evaluation instance



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Benefits of Oracle APEX

No Cost



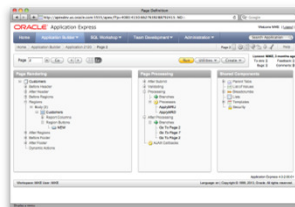
In Browser Development



RAD



Declarative Web 2.0



Leverage SQL



Self Service



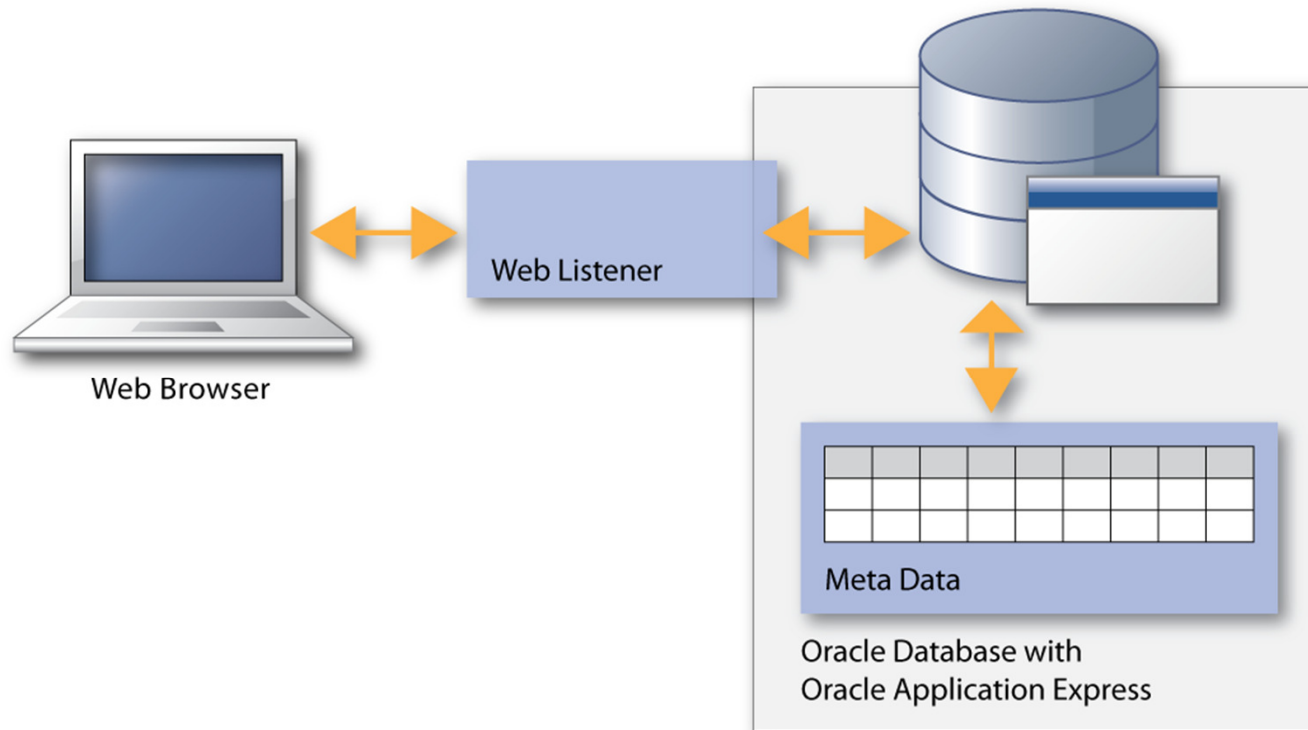
A photograph of a BMW Oracle Racing sailboat, a large catamaran, sailing on the ocean. The boat is white with black and red accents. The sails are white with "ORACLE" and "Sun" logos. The hull has "BMW ORACLE Racing" and "ORACLE" logos. The background is a clear blue sky and sea. A small "ORACLE" logo is in the top right corner of the image.

Demonstration

Build Application from a Spreadsheet

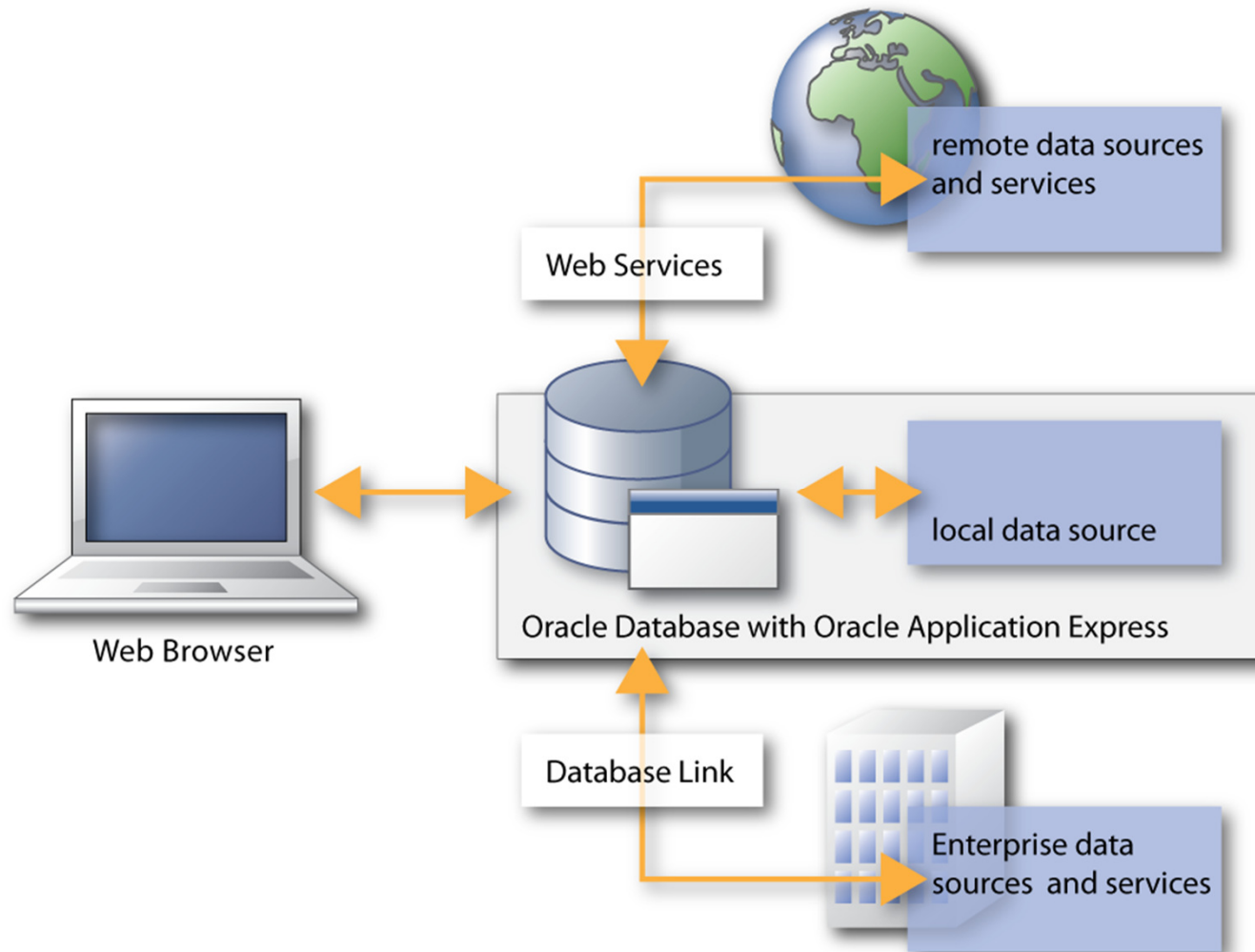
Using data from a spreadsheet create a database table and an application with reporting and data entry capabilities.

Architectural Overview



- Simple Architecture
- Pages dynamically rendered using database Metadata
- No code generation or file based compilation
- Runs Everywhere Oracle Database Runs

Building Integrated Applications



Development / Deployment Options



- Locally
 - Install on Stand-alone machine



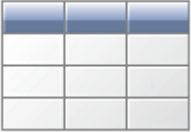





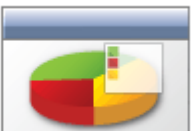


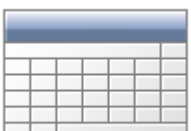








- Multi-tenant Private Cloud
 - Workspaces for each department
 - Self-service provisioning model



- Public Cloud
 - Hosting partners
 - Amazon EC2

Develop & deploy where it is most convenient and cost effective

Out of the Box Development Features

	Reports		Validations		Globalization
	Forms		Processes		Conditional Processing
	Charts		Computations		Authentication
	Calendar		Branches		Authorization
	Templates		Web Services		Session State Management
	Navigation		Email Services		Logging & Monitoring

Interactive Reports

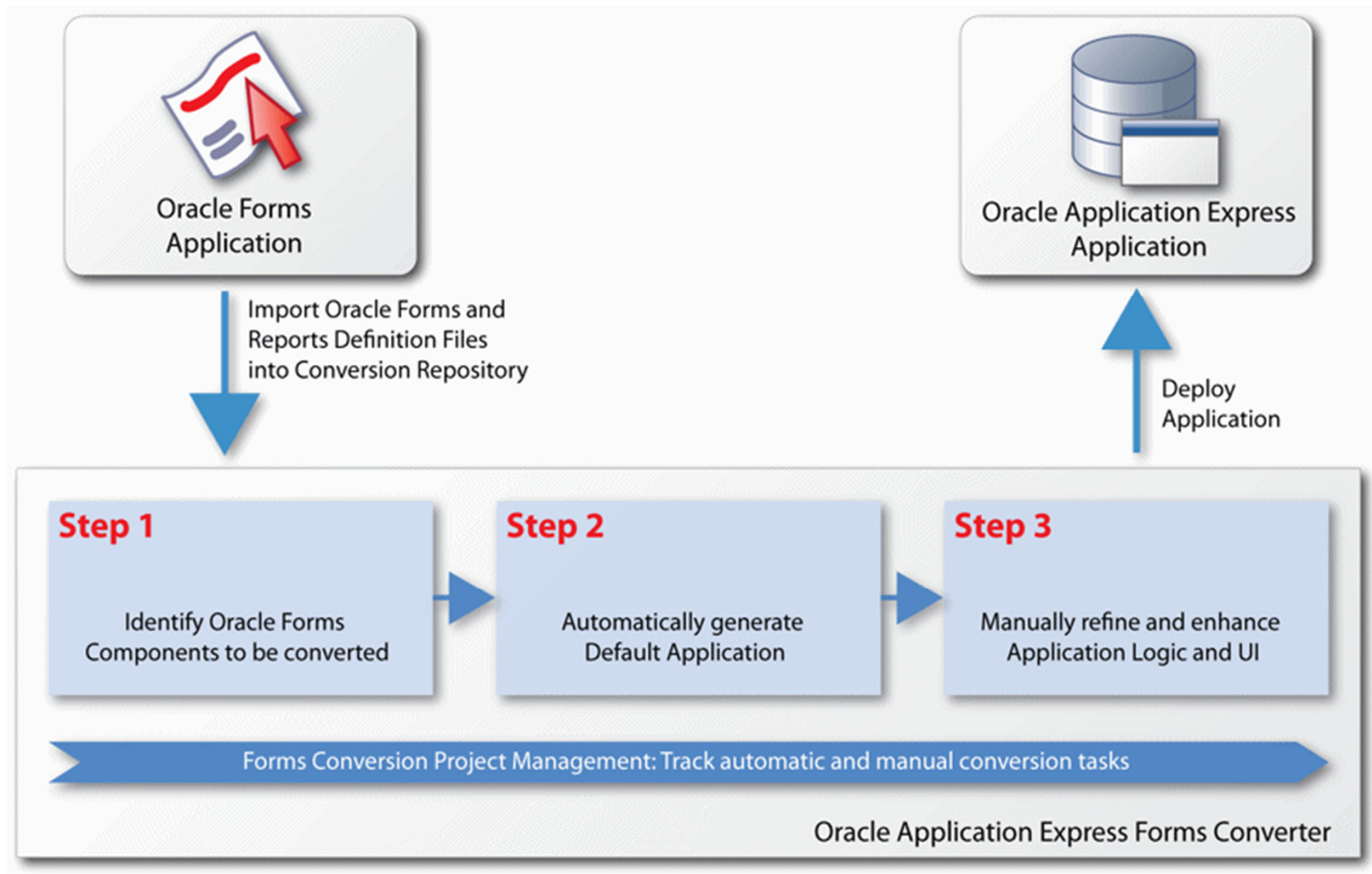
- Out of the box declarative Web 2.0 reporting
- Dramatically enhances end-user capabilities

The screenshot displays an Oracle Interactive Report titled '2. Monthly Review'. The interface includes a search bar, a 'Go' button, and a 'Reports' dropdown menu. A filter section on the left shows 'Alternative Default: Monthly Review' with two active filters: 'Orders > \$1,500' (green) and 'Orders <= \$900' (yellow). The main data table is titled 'Order Month : April 2010' and has columns for Order #, Order Date, Customer Name, Sales Rep, Order Items, and Order Total. The table shows data for April 2010, including an average order total of \$870.00. A dropdown menu for 'Order Month : May 2010' is open, showing options like 'Last 5 Years', 'Last 2 Years', 'Last Year', 'Last Month', 'Last Week', 'Last 2 Days', 'Last Day', 'Last 12 Hours', 'Last 2 Hours', 'Last Hour', 'Next Hour', and 'Next 2 Hours'. An 'Actions' menu is open on the right, showing options like 'Select Columns', 'Filter', 'Rows Per Page', 'Format', 'Flashback', 'Save Report', 'Reset', 'Help', 'Download', and 'Subscription'.

Order #	Order Date	Customer Name	Sales Rep	Order Items	Order Total
10			DEMO	3	\$870.00
					Average: \$870.00
Order Month : May 2010					
Order #	Order Date	Customer Name	Sales Rep	Order Items	Order Total
5			DEMO	5	\$950.00
6			DEMO	4	\$1,515.00
7			DEMO	7	\$905.00
8		Butch	DEMO	4	\$1,060.00
9			DEMO	3	\$730.00
					Average: \$1,032.00

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Oracle APEX Forms Conversion Overview





Demonstration

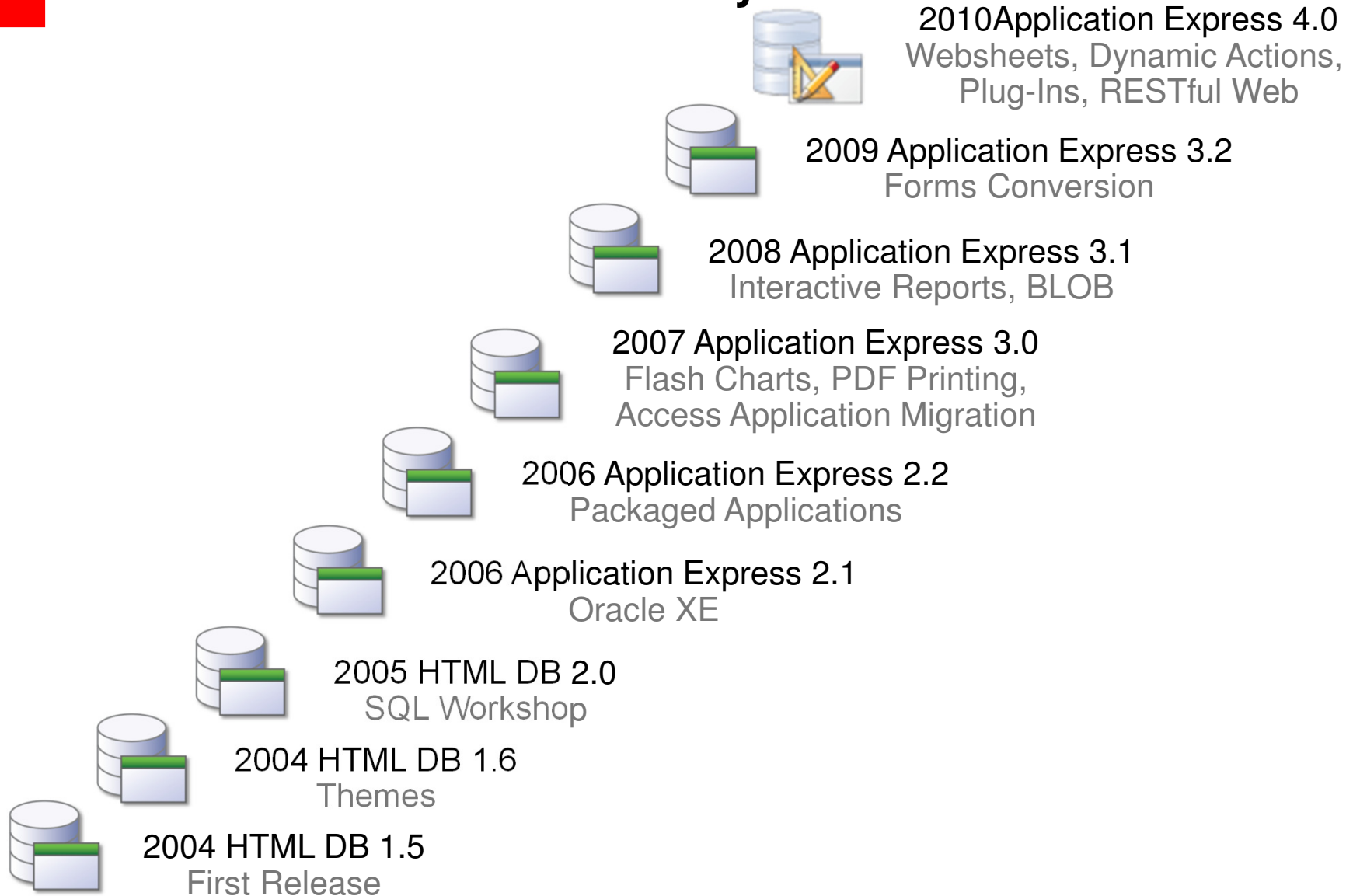
Interactive Reports

Allows end users to customize, download, email, and share reports

Dynamic Actions & Plugins

Dynamic page controls without writing JavaScript & AJAX; Extending framework

Oracle APEX Release History



#3 OTN Forum

OTN Discussion Forums : Application Express

http://forums.oracle.com/forums/forum.jspa?forumID=137

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Forum Home Database Application Express

Forum: Application Express

Post New Thread Back to Category

Messages: 289,957 - Threads: 59,355 - Filter: All Threads Pages: 3,957 [1 2 3 4 5 | Next]

Thread	Author	Views	Replies	Last Post
Welcome to the Oracle Application Express Discussion Forum! Posted By: sbkenned -- Sep 9, 2010 9:09 AM				
Oracle Application Express 4.0.1 is now Production Posted By: dpeake -- Aug 18, 2010 8:28 AM				
Oracle Application Express Listener now Production --> New APEX Listener Forum now available Posted By: sbkenned -- Jul 6, 2010 11:33 AM				
web service reference input parameter - strip off characters before calling	mterlesky	10	0	Sep 17, 2010 1:15 PM Last Post By: mterlesky »
How do you add HttpOnly to all cookies in APEX3.2 ? Any good news?	BillC	20	0	Sep 17, 2010 12:39 PM Last Post By: BillC »
Aligning SQL reports in a region so that all top edges are aligned	richb267	40	1	Sep 17, 2010 12:34 PM Last Post By: Bob37 »
APEX 4.0.1 bug - Interactive Report Search Bar - ORA-12899	Louis-Guillaume	259	4	Sep 17, 2010 12:28 PM Last Post By: Louis-Guillaume »

Display a menu

Welcome, Guest

[Sign In / Register](#)
[Guest Settings](#)
[Search](#)
[FAQ](#)

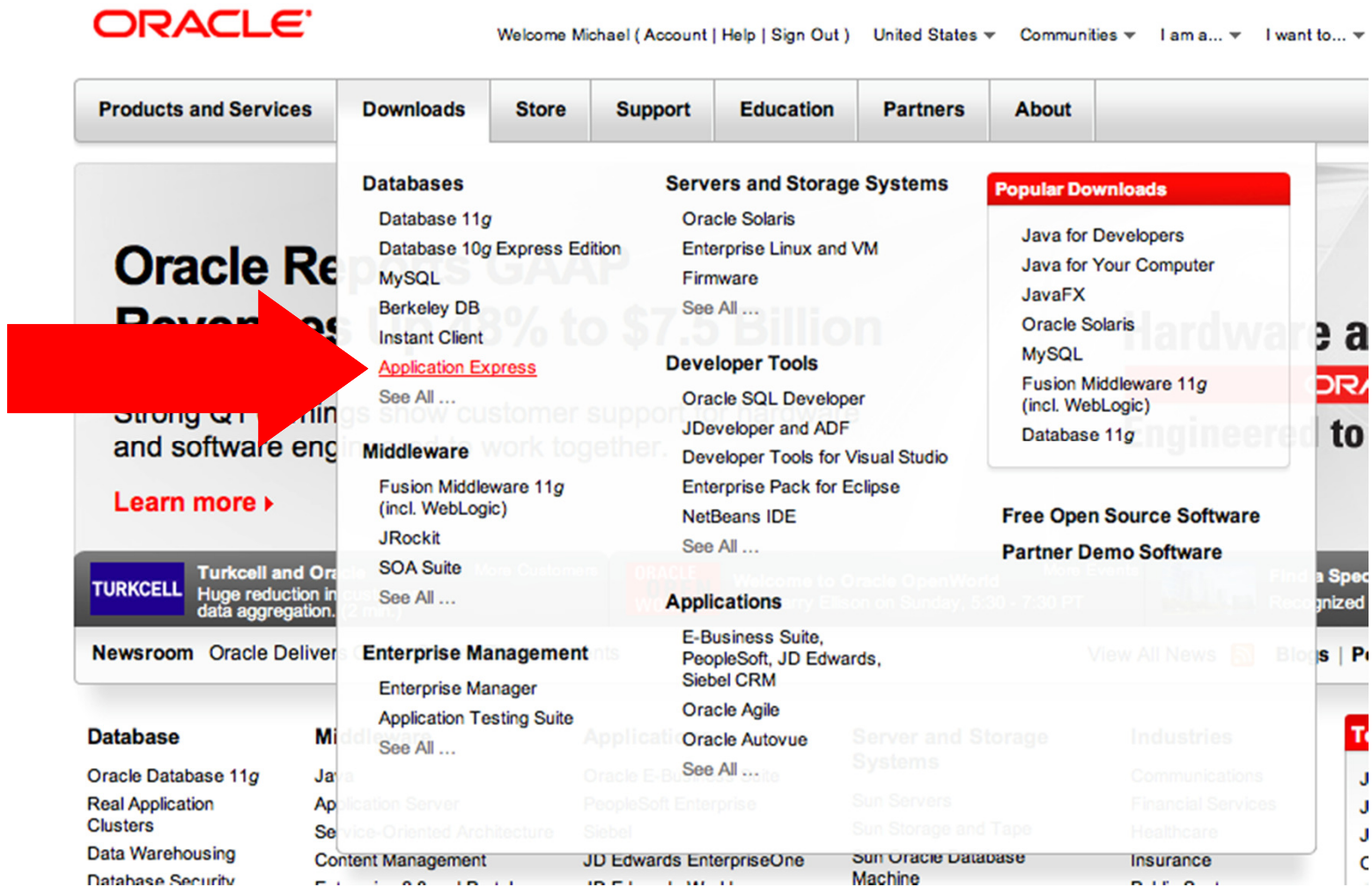
Search Forum

Go

Top Users in Forum

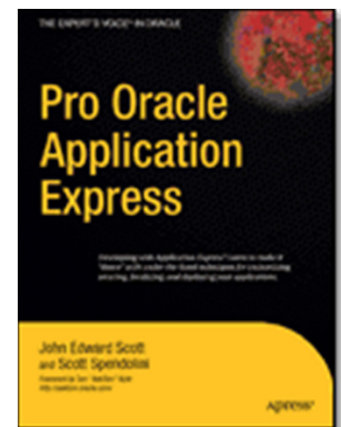
- [ATD](#) (10970)
- [varad acharya](#) (7860)
- [jarola](#) (6220)
- [scott.spadafore...](#) (4805)
- [Roel](#) (4325)
- [Denes Kubicek](#) (4100)
- [Munky](#) (3150)
- [Dan McGhan](#) (2965)

Popular Oracle OTN Download



The screenshot shows the Oracle OTN website interface. At the top, the Oracle logo is on the left, and a navigation bar on the right includes links for 'Welcome Michael (Account | Help | Sign Out)', 'United States', 'Communities', 'I am a...', and 'I want to...'. Below this is a main navigation bar with tabs for 'Products and Services', 'Downloads', 'Store', 'Support', 'Education', 'Partners', and 'About'. The 'Downloads' tab is selected, and a dropdown menu is displayed. This menu is organized into several categories: 'Databases' (listing Database 11g, Database 10g Express Edition, MySQL, Berkeley DB, Instant Client, and Application Express), 'Servers and Storage Systems' (listing Oracle Solaris, Enterprise Linux and VM, Firmware, and a 'See All ...' link), 'Developer Tools' (listing Oracle SQL Developer, JDeveloper and ADF, Developer Tools for Visual Studio, Enterprise Pack for Eclipse, NetBeans IDE, and a 'See All ...' link), 'Middleware' (listing Fusion Middleware 11g (incl. WebLogic), JRockit, SOA Suite, and a 'See All ...' link), 'Enterprise Management' (listing Enterprise Manager, Application Testing Suite, and a 'See All ...' link), and 'Applications' (listing E-Business Suite, PeopleSoft, JD Edwards, Siebel CRM, Oracle Agile, Oracle Autovue, and a 'See All ...' link). A red arrow points from the left towards the 'Application Express' link in the Databases section. To the right of the main dropdown, there is a 'Popular Downloads' sidebar listing 'Java for Developers', 'Java for Your Computer', 'JavaFX', 'Oracle Solaris', 'MySQL', 'Fusion Middleware 11g (incl. WebLogic)', and 'Database 11g'. Below this sidebar, there are sections for 'Free Open Source Software' and 'Partner Demo Software'. The bottom of the page features a 'Newsroom' section with a headline about 'Turkcell and Oracle' and a 'Database' section listing various Oracle Database products.

Oracle Application Express Books



Oracle Application Express Bloggers



Joel Kallman



Marc Sewtz



Patrick Wolf



Dimitri Gielis



David Peake



John Scott



Scott Spendolini



Doug Gault



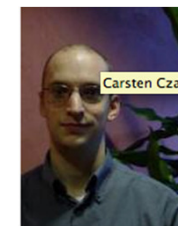
Dietmar Aust



Francis Mignault



Denes Kubicek



Carsten Czarski

ORACLE

New in Oracle Application Express 4.0



Dynamic Actions*



Team Development



Plug-ins*



**Enhanced
Interactive Reports***



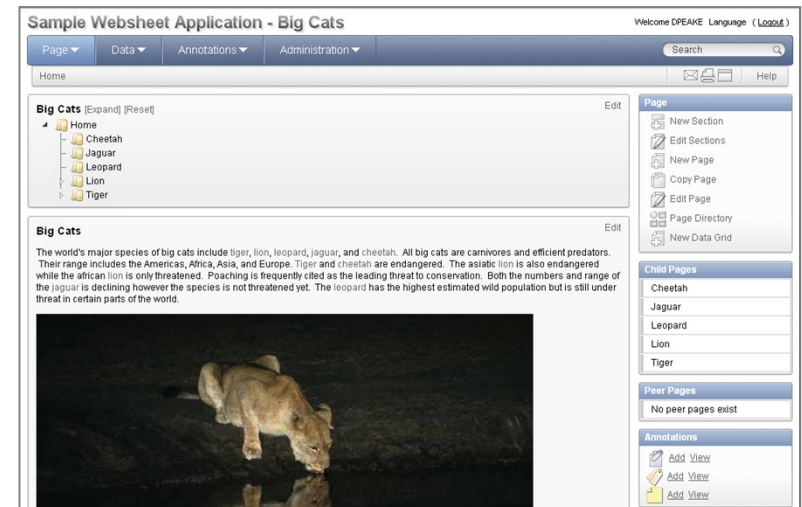
**RESTful Web
Service Support**



**Improved
Charting**

Websheets

- Build basic applications faster and with more functionality
- Web-based content sharing
 - Hierarchical text pages
 - Editable data grids
 - Interactive Reports
- Mark-up syntax with SQL Tags
- Designed for Business Users
- Incorporates “sharing” model (Reader, Contributor, Admin)
 - Integrated annotations (attachments, tags, notes, links)





Demonstration

Websheets

Data authoring

Online reporting

Page content creation

Collaborative content sharing

Examples of Oracle APEX Applications

Oracle APEX Applications

asktom.oracle.com

The screenshot shows the 'Ask Tom Home' web application in a browser window. The URL is <http://asktom.oracle.com/pls/apex/f?p=100:1:0>. The page features a navigation bar with links: Questions, Resources, Archives, Links, Popular, Hot, and Files. A search bar is present with a 'Home' button. Below the search bar, a message states: 'Times are in Central time zone (GMT-05:00). In the last 4 weeks, I've taken 17 new questions, read 353 followups, and responded to 240 of the followups.' A search box is available with a 'Display 15' dropdown and 'Go' and 'Advanced Search' buttons. A table lists recent questions with columns for Subject, Last Updated, and First Asked. The table includes 15 entries, with the last two rows showing 'Intermittent commits' updated 22 hours ago and first asked 30 hours ago. Below the table, a 'Messages' section contains two items: one about content location and another about a new theme. On the right side, a 'New Books' section lists two books: 'Expert Oracle Database Architecture' and 'Effective Oracle by Design', both by Thomas Kyte, with Amazon purchase links. A 'Feeds' section is at the bottom right.

Ask Tom Home

Questions Resources Archives Links Popular Hot Files

Home

Times are in Central time zone (GMT-05:00)
In the last 4 weeks, I've taken 17 new questions, read 353 followups, and responded to 240 of the followups

Search Display 15

Subject	Last Updated	First Asked
Transactions per second	95 minutes ago	10.1 years ago
What are Fixed Size and Variable Size of SGA indicative of and...	3 hours ago	9.5 years ago
Does UTL_MAIL have an attachment limit of 32k	3 hours ago	2.9 years ago
using explain plan	3 hours ago	10.4 years ago
Application contexts in a web environment	3 hours ago	8 years ago
Partitioning existing tables	3 hours ago	2.3 years ago
Effective Upgrade Strategy	8 hours ago	30 hours ago
rownum question	9 hours ago	10.4 years ago
global temp table	9 hours ago	6.6 years ago
Question on Using Ref Cursor	9 hours ago	8.2 years ago
Dropping and recreating indexes using dynamic DDL	9 hours ago	45 hours ago
Fetching last record from a table	9 hours ago	9.2 years ago
Data Extraction into files	22 hours ago	24 hours ago
Joining data in historical tables	22 hours ago	24 hours ago
Intermittent commits	22 hours ago	30 hours ago

1 - 15 Next >

Messages

- o All of the content that used to be located at <http://asktom.oracle.com/tkyte/> is now here: <http://tkyte.blogspot.com/2009/10/httpasktomoraclecomtkyte.html>
- o It has started again - that blogging thing... Current theme is "things I did not know (about Oracle)". Take a look at [my blog](#) and give me feedback. Things I did not know - interesting things I've learned day to day about the Oracle database...

Sorry I have a large backlog right now, please ask a question later.
Click [here](#) to view your questions.

New Books

All of the content that used to be located at <http://asktom.oracle.com/tkyte/> is now here: <http://tkyte.blogspot.com/2009/10/httpasktomoraclecomtkyte.html>

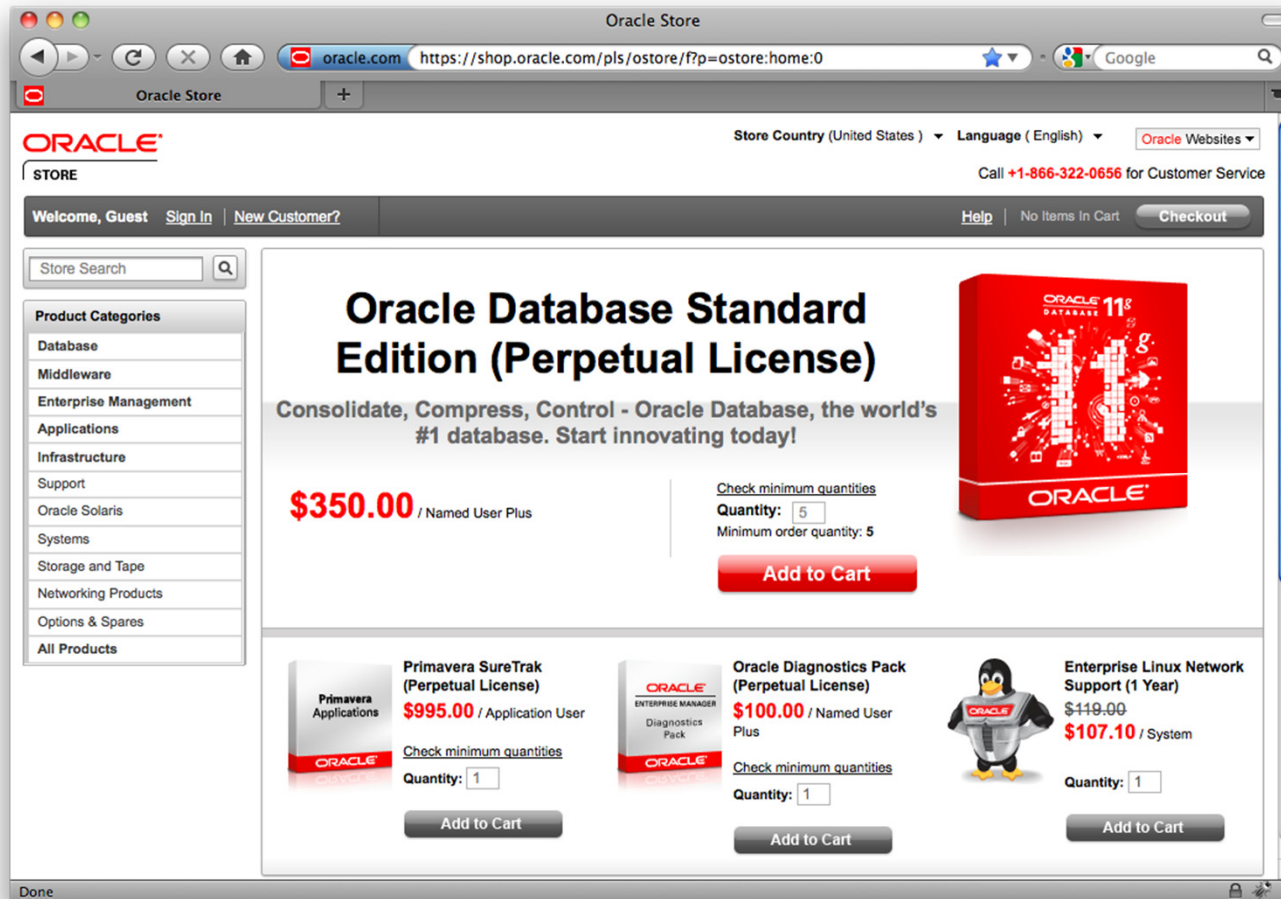
Expert Oracle Database Architecture
Thomas Kyte
Best Price \$34.44 or Buy New \$37.79
[Buy from amazon.com](#)

Effective Oracle by Design
Thomas Kyte
Best Price \$19.60 or Buy New \$38.60
[Buy from amazon.com](#)

Feeds

Oracle APEX Applications

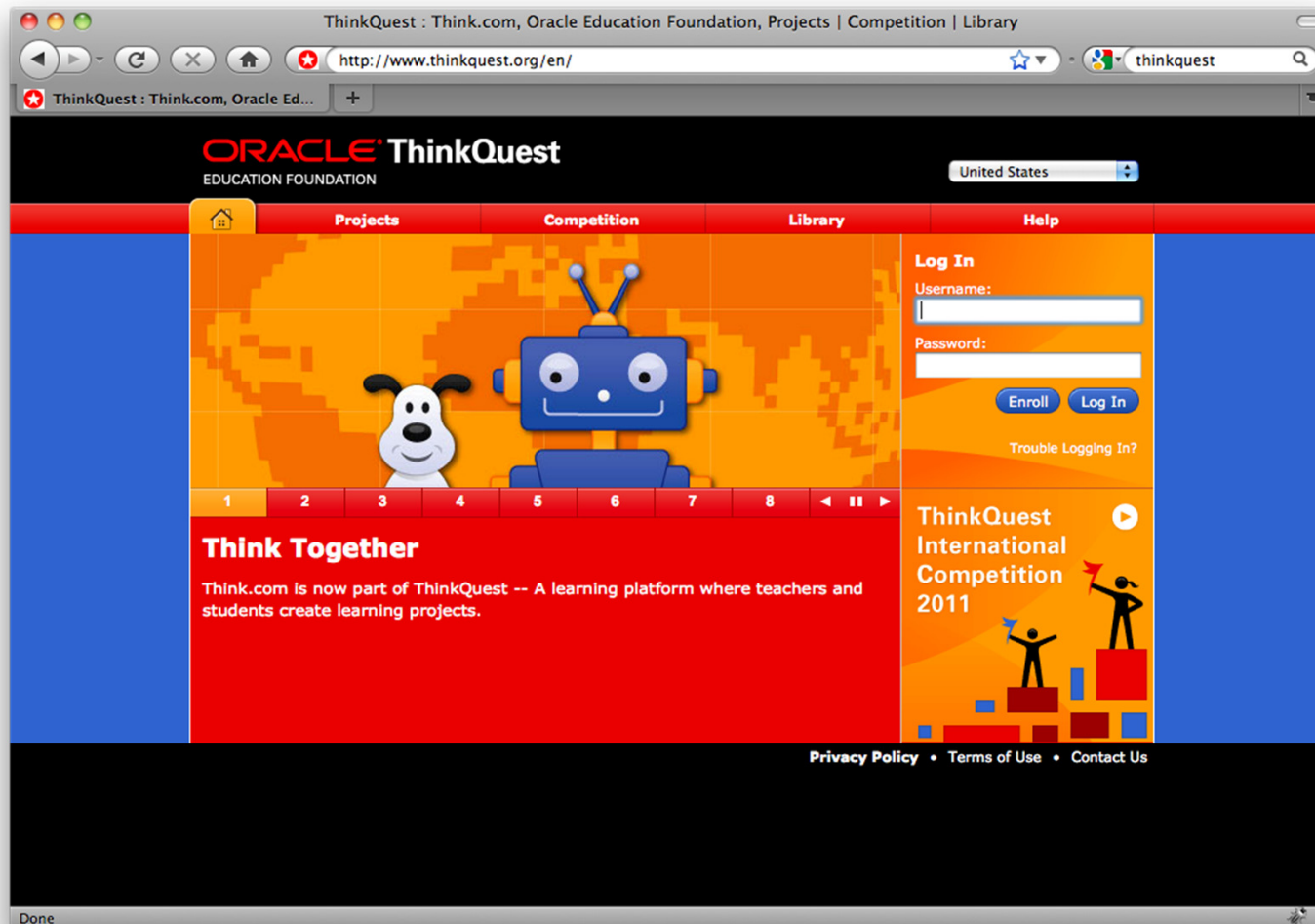
oracle.com/store



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Oracle APEX Applications

thinkquest.org



Oracle APEX Applications

promedmail.org



Oracle APEX Applications

Solutions and Requirements Tracking (internal)

The screenshot displays the SOLAR application interface within a web browser. The browser's address bar shows the URL: `https://apex.oraclecorp.com/pls/apex/f?p=12167:1:122426783619153`. The application header includes the SOLAR logo, the title "(Solutions and Requirements System)", and a welcome message for "MICHAEL.HICHWA@ORACLE.COM" with links for "Administration" and "Logout". A search bar is located in the top right corner.

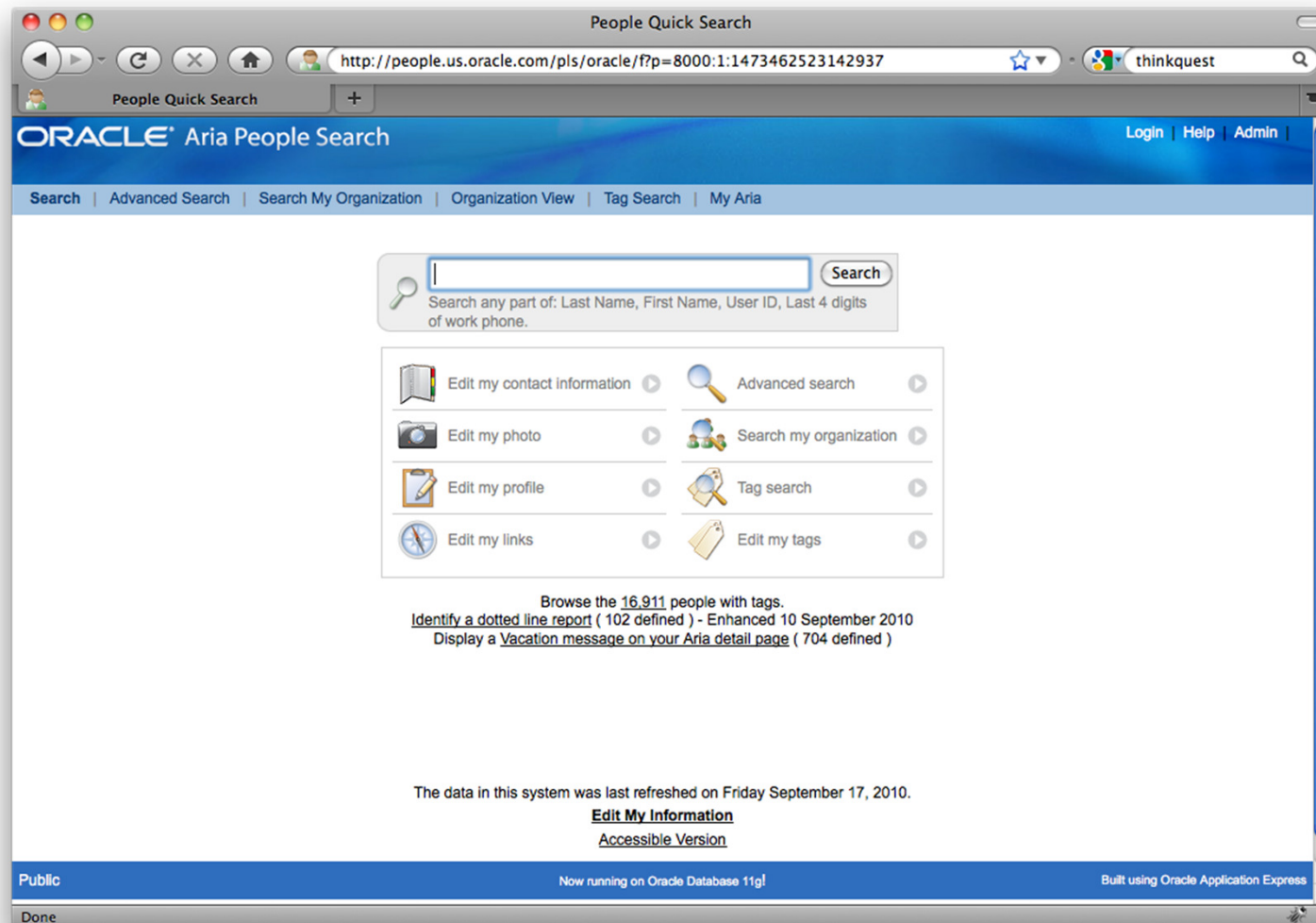
The main content area is divided into several sections:

- Recent Business Requirements:** A list of requirements with their status and time since update. For example, "Possible Finance r... yet been finalized" is 6 hours old.
- Recent Solutions:** A list of solutions with their status and time since update. For example, "Populate the subin...ked at pick release" is 20 hours old.
- Requirements by IT Track:** A table showing the count of requirements for various IT tracks.
- Solutions by IT Track:** A table showing the count of solutions for various IT tracks.
- Requirements by Status:** A table showing the count of requirements for different statuses.
- Solutions by Status:** A table showing the count of solutions for different statuses.
- About:** A section providing an overview of the system and key statistics.
- Solution Delivery:** A table showing the count of solutions delivered by month.

The bottom of the browser window shows the full URL: `https://apex.oraclecorp.com/pls/apex/f?p=12167:20:122426783619153::NO:20:P20_ID:185473292377301066740880197431228129915`.

Oracle APEX Applications

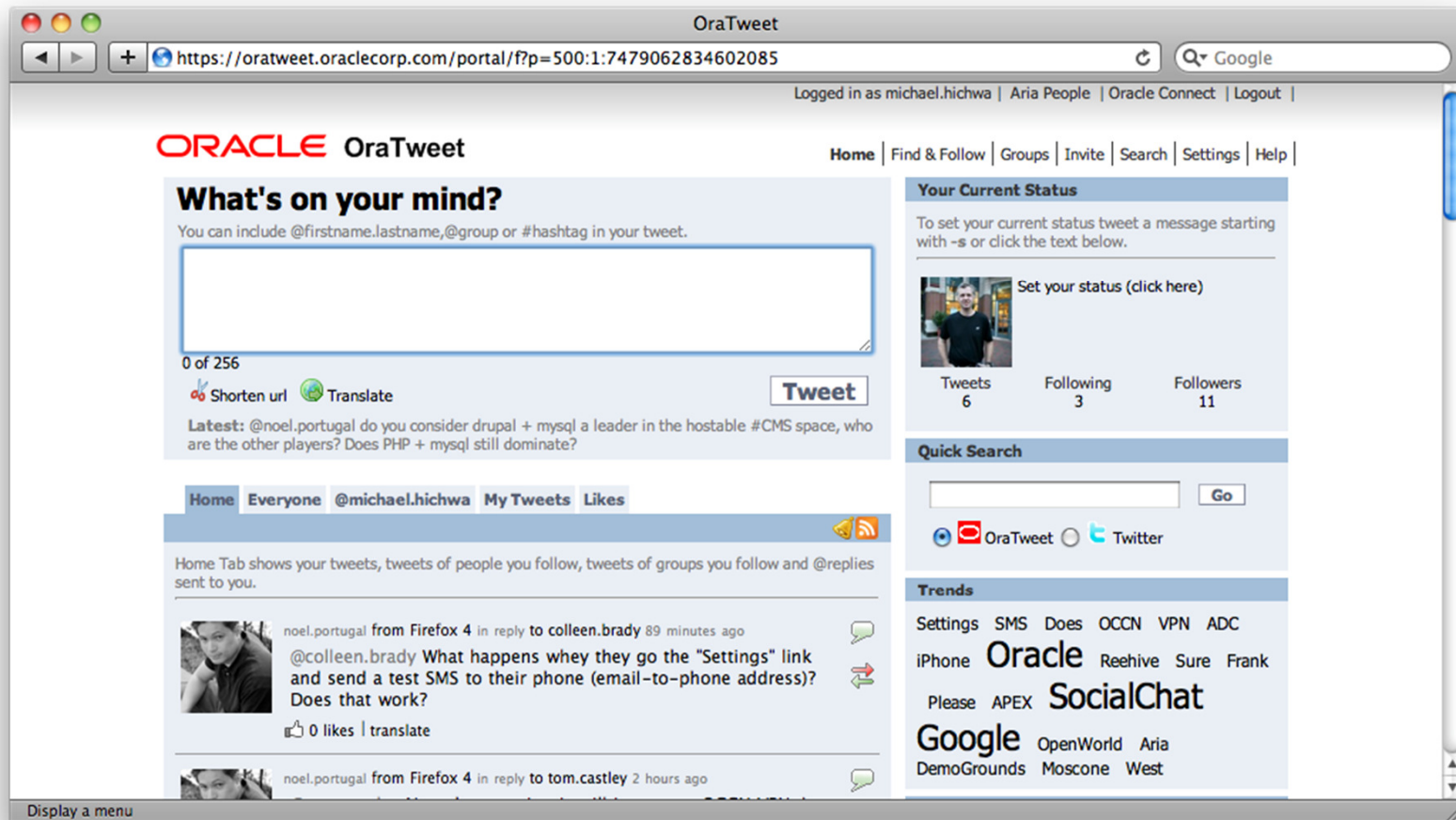
aria people



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Oracle APEX Applications

oratweet.oraclecorp.com



What Makes an application Successful?

- Oracle APEX user interface
 - Themes
 - Comprised of templates
 - Oracle supplies many, you can develop your own
 - Technologies
 - Image sprites, CSS 3, XHTML Strict
 - Cross browser compatibility
 - jQuery
 - Modernize applications by switching themes
- Separation of look and feel and application logic

Visually Pleasing

- Runs within the database
 - Application logic and data on same tier = less network traffic
 - Leverages database functionality; SQL, bind variables, result set caching, RAC, analytics, DB buffer cache, ...
- Stateless
 - Session state maintained within database
 - Sessions not processing or generating pages have zero load on the server
- Scalable
 - Scales up to large systems with 100,000's of online users
 - Scales down to your laptop

Fast

- Browsers
 - Firefox, IE, Safari, Chrome
- Mobile
 - iPhone, iPad, Android
- Operating Systems
 - Everywhere Oracle runs, Solaris, Windows, Linux, HP-UX, AIX ...
- Hardware
 - From laptops to clusters of large SMP's to Exadata

Run Everywhere

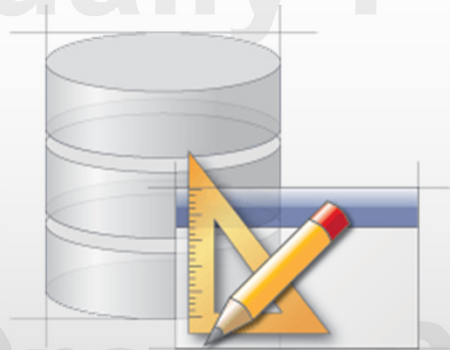
- Clear navigation and page flow
- Obvious indication of application context
- Intuitive controls
- Easy for the novice
- Full featured for power users

Intuitive

- Real time data access
- Ability to customize
- Edit data online
- Localization
- Secure role aware applications

Dynamic

Visually Pleasing



Application Express

Fast

Cross Platform

Intuitive

Dynamic

ORACLE®

SOFTWARE. HARDWARE. COMPLETE.