

Hands on Lab Instructions
Oracle Technology Network Virtual Develop Day: Database

Date and Time-

Americas - Wednesday September 13, 2011 –
 9:00am -13:00pm PDT
 11am --15:00pm CDT
 12Noon – 16:00pm EDT
 13:00am – 17:00pm BRT

Agenda

Time	Track and Keynote/Session Title			
9:00:00 AM	Keynote – 11g Database Development			
	Java Track	Database Track	Apex Track	.NET Track
09:30:00 AM	Advanced Java Persistence with JDBC, UCP and Java in the Database – Last 30 minutes Hands on Lab	Introducing Oracle SQL Developer and SQL Developer Data Modeler	Getting started with Application Express	Getting Started with Oracle and .NET
10:30:00 AM		Developing Database Applications using Oracle In-Memory Database Cache	Building, Customizing and Using Interactive Reports	Oracle and .NET: Best Practices for Performance and Deployment
11:00:00 AM	Productive Rich Enterprise Application Development with Oracle ADF and JDeveloper	Developing Database Applications using Oracle XML Database	Building Dynamic Actions in Oracle Application Express	
11:30:00 AM				
12:00:00 PM				
12:30:00 PM	Q+A			Close
1:00:00 PM	Close			

Java Track –

Session 1 : 90 Minutes - Implement Efficient Java Persistence with JDBC, UCP, and Java in the Database. Last 30 Minutes is Hands on Lab.

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Participants learn the latest and advanced Java persistence mechanisms with JDBC, Universal Connection Pool and Java in the database.

- i) They learn about Java in the database: why, when and what for. Hands-on lab practice include: loading Java classes; JIT compilation of Java classes in the database; mapping SQL and object types to/from Java types; define Call Specs; invoke Java in the database.
- ii) They learn advanced JDBC features including LOB Prefetching, statement caching and query change notification.
- iii) They learn about the new Java Universal Connection Pool (UCP) through a stock ticker application that retrieves stock price information from the database, and client query result caching.

Session 2 : 90 Minutes - Productive Rich Enterprise Application Development with Oracle ADF and JDeveloper

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Looking for a fast way to expose information from your database to rich Web user interfaces and mobile devices? In this session you'll get an introduction to Oracle JDeveloper - Oracle's strategic development tool for enterprise applications, and to Oracle ADF - the development framework used for Fusion Applications. Learn how JDeveloper simplifies development of applications that interact with your database, how to expose the information from your database in rich Web UIs and graphical dashboards, and how to extend your application to mobile devices. With built in features for database, Web, Java and SOA development - JDeveloper provides a one stop shop for your application development needs.

Database Track

Session 1 : 1 Hr - Introducing Oracle SQL Developer and SQL Developer Data Modeler

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Learn to work with PL/SQL, creating a new procedure, compiling, and debugging the procedure. They work with the latest new features introduced into SQL Developer, by creating and running unit tests for a PL/SQL procedure.

- Developing and Debugging PL/SQL
- Creating Unit Tests for your PL/SQL
- Adding a Table to An Existing Database
- Modifying a Logical Model Using Inheritance and Object Types • Generating a Multi-Dimensional Model
- Reviewing Your Oracle SQL Developer Data Modeler Design
- Working with PL/SQL In SQL Developer

Session 2 : 1Hr - Developing Database Applications using Oracle In-Memory Database Cache

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Participants will learn how to cache a subset of Oracle Database tables in an in-memory database cache grid to improve response time and scalability in the application tier. They will also learn how PL/SQL can be speeded up by storing performance sensitive PL/SQL subprograms into a TimesTen In-Memory database, resulting in shorter SQL processing time and faster application response time.

Session 3 : 1Hr - Developing Database Applications using Oracle XML Database

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Oracle XML DB provides high-performance native storage, retrieval, and management of XML data. With Oracle Database 11g Release 2, XML DB is taking another leap forward, providing exciting new storage and indexing options that improve performance and scalability for both structured and unstructured XML content. Learn how XML DB allows you to use industry standards like SQL/XML and XQuery and to store, index, query, transform, and access XML and relational data.

This HOL will provide an introduction to the following items:

- Using binary XML storage to store, query structured and unstructured XML content
- Indexing binary XML content

Application Express Abstracts

Session 1 : 1 Hr - Getting started with Application Express

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This introductory tutorial takes you through manipulating database objects, rapidly creating an application with Oracle Application Express, and adding additional components to your application.

Session 2 : 1 Hr - Building, Customizing and Using Interactive Reports

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This tutorial provides instructions on how to use Interactive Reports in Oracle Application Express. Start out by learning how to use Interactive reports and then how to build and customize these reports. Finally there is a tutorial on advanced techniques you can utilize with Interactive Reports.

Session 3 : 1Hr - Building Dynamic Actions in Oracle Application Express

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Dynamic actions provide developers with a way to define client-side behavior declaratively without the need to know JavaScript and AJAX. Using a simple wizard, developers can select a page item, a condition, enter a value, and select an action (for example, Show, Hide, Enable and Disable).

.NET Abstracts

Session #1: 1 hour - Getting Started with Oracle and .NET

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This entry-level session introduces Oracle's offerings for .NET programmers including the Oracle Data Provider for .NET (ODP.NET), Oracle's high performance ADO.NET data provider. Also, learn about the Oracle Developer Tools for Visual Studio, Oracle Providers for ASP.NET, and .NET Stored Procedures. Step by step demos will be used to illustrate how you can get started using each of these free products. New and upcoming features will also be highlighted in this session, including Entity Framework, LINQ,WCF Data Services, 100% managed ODP.NET, and support for TimesTen.

Session #2: 90 Minutes: Oracle and .NET: Best Practices for Performance and Deployment

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This session explores how to tune Oracle Data Provider for .NET (ODP.NET) for fast data retrieval and statement execution. Particular emphasis will be made on new ODP.NET and Oracle DeveloperTools for Visual Studio (ODT) tuning features. ODP.NET introduces self-tuning, which optimizes data retrieval based on run-time sampling. ODT now includes the Oracle Performance Analyzer, which monitors the running application, highlights performance problems, and offers specific recommendations, such as SQL tuning and indexing. This session will show how to use these new features and existing performance tuning techniques, including statement caching, setting fetch sizes, and statement batching. We will also dive into the best practices for deploying your application with a focus on xcopy deployment, the popular new way to bundle and deploy your application with ODP.NET.

Session #3: 30 minutes - Building .NET Applications with Oracle -- Hands on Lab Instructions

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In this Oracle/.NET hands-on lab, try out the latest features of Oracle Data Provider for .NET(ODP.NET) and experience Oracle Database's tight integration with Visual Studio. Step-by-step labs

include using the integrated PL/SQL debugger in Visual Studio, ASP.NET web application development, Oracle Performance Analyzer, creating applications with Oracle User-Defined Types, ADO.NET support,ODP.NET best practices for performance, and database event driven development techniques. Choose whichever topic interests you and work at your own pace. Lessons cover different levels of experience, including those for attendees who are new to .NET and Oracle, those who want to find out what's new,and those who are experienced users.