

Oracle9i New Features for Administrators (5 Days)

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Oracle9i New Features for Administrators (CTI 151)

ORACLE is the most widely used relational database in the world, running on PCs, Macintoshes and UNIX minicomputers. This course introduces the new features in Oracle9i that impact database administration. Learn to use Oracle9i capabilities to increase database availability, simplify database performance monitoring and tuning, and improve database manageability. The course also covers security and development platform changes that students need to understand if applications running in databases they support use the related features. This course is recommended for Technical Support Professionals, Consultants, System Administrators and Database Administrators.

Required Prerequisites: Course CTI 120, Oracle8i Performance and Tuning; Course CTI 119, Oracle8i Backup and Recovery; Course CTI 099, Oracle8i DBA – Architecture and Administration.

Suggested Prerequisites: Course CTI 121, Oracle8i Network Administration.

Minimum hardware requirements (per student): Pentium at 500MHz (or comparable), 128 or 256 Mb RAM, 700 Mb to 1 gig free hard disk space; or single UNIX workstation, plus one terminal per student. Optional Internet connection.

Software requirements: Oracle9i Release 2 installed on server. Microsoft Windows NT with latest service pack or UNIX installed on server, with Windows NT or Windows 2000 or UNIX on clients. Sample database installed on server.

Microsoft PowerPoint and Internet access on Instructor's workstation for presentation purposes.

Module 1: Oracle Server Security

Avoiding De-Supported Options
 Utilizing Advanced Security Features
 Extended National Language Support

Module 2: General High Availability Technology and Fault Recovery

Selecting High Availability Options
 Recovering from Errors and Faults with Oracle Flashback, Resumable Statements and DBVerify

Module 3: Backup and Recovery

Implementing Recovery Manager (RMAN) Automatic Channel Allocation
 Performing RMAN Long Term, Mirrored and Resumable Backups
 Utilizing Other RMAN Enhancements
 Performing Trial Recovery
 Performing Block Level Recovery

Module 4: Data Protection and Disaster Recovery

Incorporating Improvement to Standby Database Management
 Implementing Application Fail Over

Module 5: Oracle9i LogMiner Enhancements

Examining DDL Statements with LogMiner
 Examining Only Committed Transactions with LogMiner
 Utilizing Other New LogMiner Features

Module 6: High-Availability Options

Identifying Oracle Fail Safe Enhancements
 Configuring and Using Oracle9i Data Guard

Module 7: Database Resource Manager Enhancements

Establishing an Active Session Pool
 Configuring Automatic Consumer Group Switching
 Modifying Undo Quota

Module 8: Online Operations

Rebuilding Indexes Online
 Reorganizing Indexed Organized Tables Online
 Quiescing the Database for Restricted Access

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Module 9: Segment and Index Management

Creating Segments with Automatic Free Space Management
Maintaining Global Indexes during DDL Operations
Managing External Tables
Partitioning Tables with the LIST Option
Unloading Metadata

Module 10: Performance Improvements

Enabling and Disabling Index Usage Monitoring
Reducing Index Requirements with Index Skip Scanning Optimization
Utilizing Cost Based Optimizer Improvements

Module 11: Scalable Session State Management

Managing External Procedure Agents
Managing Multi-Threaded Heterogeneous Services

Module 12: Real Application Clusters

Defining Real Application Clusters and Cache Fusion
Creating a Common Initialization Parameter File
Configuring Oracle Parallel Fail Safe

Module 13: File Management

Utilizing Oracle Managed Files
Managing Default Temporary Tablespaces
Creating and Maintaining Server Parameter Files

Module 14: Tablespace Management

Managing Multiple Block Sizes
Supporting Automatic Undo Management

Module 15: Memory Management

Managing PGA Memory
Sizing SGA Components Dynamically
Measuring Latch Contention

Module 16: Working with Objects

Oracle Object Features
Creating Objects
Object Syntax
Work with Objects
Create Object Tables
ADT's

Module 17: New Features of SQL

CASE
NULLIF and Coalesce
Understanding Hierarchical Trees
Creating Queries
Advanced Joins

Module 18: Working with the 9i Server

Writing a Successful SELECT Statement in PL/SQL
Declaring the Data Type and Size of a PL/SQL Variable Dynamically
Writing Data Manipulation Language (DML) Statements in PL/SQL
Controlling Transactions in PL/SQL
Determining the Outcome of SQL DML Statements

Module 19: Review and Summary