

ORA600 - Oracle8 Database Administration

Develop Skills necessary to effectively manage and Oracle Relational Database

Hands-on **5 day course**

Course Description

Develop skills to effectively administer an Oracle8 Object Relational Database Management System. Enhance your understanding of the Oracle8 architectural components. Configure and start up the Oracle instance and memory components and create the Oracle database repository. Create physical and logical database objects, Utilize Oracle Enterprise Manager and the integrated Oracle Data Dictionary to monitor and maintain the Oracle8 database. Secure access to the Oracle8 objects with privileges, roles and profiles. Exercises and lab sessions reinforce the learning objectives and provide participants the opportunity to gain practical hands-on experience.

You Learn to...

- Define and understand the Oracle architecture, components, functions, and processes
- Define and size the System Global Area (SGA) Cache
- Create an Oracle8 database
- Start up and shut down a database using Oracle Enterprise Manager
- Create and define the logical and physical structure of an Oracle8 database
- Organize the contents of an Oracle8 database
- Size and Resize Database Files
- Manage Partitions
- Create Virtual Databases
- Create Index Organized Tables
- Create Function Based Indexes
- Define SQL Statement Processing
- Create Rollback Segments
- Create User Profiles
- Manage Security

Who Needs to Attend

- Data Analysts
- Data Administrators
- System Administrators
- Developers
- Support Staff

Prerequisites:

You must have knowledge of SQL or attend the Oracle8 SQL and PL/SQL or SQL/SQL*Plus Develop Queries and Reports courses.

Follow-On Courses

- Oracle8 Database Performance Tuning
- Oracle8 Database Backup and Recovery



Global Business Solutions, Inc.
Toll Free: 877-446-4274

Course Content:

1. Database Administration Overview

- DBA Responsibilities

2. Oracle Architecture Overview

- The Oracle Instance
- Memory Structures
- User Processes
- Server Processes
- Background Processes
- Oracle Database
- Non-Database Files

3. Process Database Transactions

- SQL Statement Processing
- Shared Pool Cache
- Program Global Area
- Database Block Cache
- Query Operations
- Update Operations
- Database Writer (DBWR)
- Redo Log Cache
- Log Writer (LGWR)
- Issuing COMMIT
- Redo Log File Switch
- Database Checkpoint
- Checkpoint Process
- Archiver Process

4. Oracle Startup and Shutdown

- DBA Utility
- Authentication
- STARTUP
- ALTER DATABASE
- SHUTDOWN

5. Create an Oracle Database

- Logical and Physical Structures
- Database Organization
- Database Steps
- Parameter File Configuration
- Adding Control Files

- Adding Redo Log Files
- Creating an Integrated Data Dictionary
- Displaying Dictionary Views

6. Define Database Objects

- Types of Tablespaces
- Read-Write and Read-Only Tablespaces
- Transportable Tablespaces
- Tables
- Table Data Types
- Large Object (LOB) Data Types
- LOB Locators
- Temporary Tables
- Index Types
- Bitmap Index
- Function Based Index
- Partition Data
- Advantages of Partitions
- Equipartitions
- Index Organized Tables
- Data Segments
- Index Segments
- Rollback Segments
- Rollback Segment Types
- Read Consistency
- Temporary Segments
- Bootstrap Segment
- Database Extents
- Database Blocks

7. Manage Database Objects

- Creating, Altering and Dropping Tablespaces
- Steps to Transport Tablespaces
- AUTOEXTEND
- CREATE TABLE
- STORAGE Clause
- PARTITION Clause
- Creating and Altering Tables
- Allocating and Deallocating Space
- Drop Table



Global Business Solutions, Inc.
Toll Free: 877-446-4274

- Index Segment
- Creating, Altering and Dropping Indexes
- Index Organized Tables
- Rollback Segments
- Creating, Altering and Dropping Rollback Segments
- Monitoring Database Objects

8. Manage Database Storage

- Database Extents
- Control Storage Allocation
- Extent Allocation
- Fragmentation
- Database Blocks
- Block Space Utilization
- PCTFREE
- PCTUSED
- Chaining and Migration
- Control Active Transactions
- High Water Mark
- Deallocating Unused Space
- Coalescing Free Space
- Validating Structures
- Monitoring Space Utilization
- Locally Managed Tablespaces

9. Manage Database Users

- User Properties
- Creating, Altering and Dropping Users
- Kill User Process
- Monitoring Users

10. Manage Database Access

- System Privileges
- GRANT/REVOKE Privileges
- With ADMIN Option
- Object Privileges
- GRANT/REVOKE Privileges
- With GRANT Option
- Monitoring Database Access
- Manage Database Access Based on Events
- Types of Database Triggers
- Manage Complex Access
- Virtual Private Databases

- USERENV Function
- SYS_CONTEXT Function
- DBMS_RLS Package
- Steps to Create Virtual Private Databases

11. Manage Database Roles

- Benefits of Roles
- Hierarchical Privilege Management
- Creating, Altering and Dropping Roles
- Enable/Disable Roles
- SET ROLE
- Role Dictionary Views

12. Manage Database Constraints

- Inline Constraints
- Out-of-Line Constraints
- Naming Constraints
- Not Null Constraints
- Unique Constraints
- Check Constraints
- Primary and Foreign Keys
- Perform Full Backup
- Adding, Disabling, Enabling and Dropping Constraints
- Constraint Violations

13. Audit Database Activity

- Audit Operations
- Focus Auditing Options
- Enabling and Disabling Auditing
- Statement Auditing
- Object Auditing
- Privilege Auditing
- Managing the Audit Trail
- Monitoring Database Auditing

14. Manage Database Resources

- User Profiles
- Resource Limits
- Creating, Altering and Dropping Profiles
- Assigning Profiles
- Default Profile
- Password Management
- Account Locking



Global Business Solutions, Inc.
Toll Free: 877-446-4274

- Password Aging and Expiration
- Password History
- Password Complexity Verification
- Monitoring Profiles



Global Business Solutions, Inc.
Toll Free: 877-446-4274