

Oracle

DBA 11G

Course Content



Oracle 11g DBA

SQLPLUS

- Retrieving data using basic select statement
- Restricting & sorting data
- Single row functions
- Groupfunctions
- Displaying data from multiple tables(Joins)
- subqueries
- set operators
- DML
- DDL
- Creating other schema objects
- Data dictionary
- Controlling user access
- Managing Schema Objects
- Managing large datasets
- Generating reports
- Managing data in different timezones
- Retrieving data using subqueries
- Hierarchical data retrieval
- Regular expression support

Oracle 11g Administration (WS-1 & WS-2)

Architecture

Oracle Database Structures, Logical Database Structures, Physical Database Structures, Oracle Processes, Interaction Between the User and Oracle Processes, The Server Process, The Background Processes

,Oracle Memory Structures ,Understanding Main Memory, The System Global Area,The Program Global Area . .

Installation

Installation of Oracle 11g on RHEL 5.3

Database Creation

Creating database using DBCA

Instance

Understanding startup and shutdown options

Network

Oracle Net Services, Oracle Net Listener ,Establishing Net Connections , Establishing a Connection,User Sessions Tools for Configuring and Managing the Oracle Listener Control Utility,Listener Control Utility Syntax,Listener Home Page, Net Services Administration Pages, Creating a Listener ,Adding Listener Addresses ,Database Service Registration, Testing Oracle Net Connectivity, Shared Server

Storage (Tablespaces)

Storage Structures,How Table Data Is Stored,Anatomy of a Database Block , Tablespaces and Data Files , Space Management in Tablespaces, Creating a New Tablespace ,Storage for Locally Managed Tablespaces, Altering a Tablespace, Actions with Tablespaces, Dropping Tablespaces, Viewing Tablespace Information, Gathering Storage Information ,Viewing Tablespace Contents , Enlarging the Database , What Is Automatic Storage Management? ,ASM: Key Features and Benefits , ASM: Concepts .

Users

Database User Accounts, Predefined Accounts: SYS And SYSTEM,Creating a User,Authenticating Users, Administrator Authentication, Unlocking a User Account and Resetting the Password ,Privileges ,System Privileges, Object Privileges , Revoking System Privileges with ADMIN OPTION ,Revoking Object Privileges with GRANT OPTION , Benefits of Roles , Assigning Privileges to Roles and Roles to Users ,Predefined Roles , Creating a Role , Assigning Roles to Users, Profiles and Users, Implementing Password Security Features , Creating a Password Profile , Assigning Quota to Users

Schema

Accessing Schema Objects, Naming Database Objects , Specifying Data Types in Tables, Creating and Modifying Tables, Understanding Data Integrity, Defining Constraints, Constraint Violations, Constraint States, Constraint Checking, Creating Constraints with SQL, Viewing the Columns in a Table, Viewing the Contents of a Table, Actions with Tables, Dropping a Table, Truncating a Table, Types of Indexes, Creating Indexes

Managing Data and concurrency

Manipulating Data Through, The INSERT Command, The UPDATE Command , The DELETE Command, The MERGE Command, The COMMIT and ROLLBACK Commands, Introduction to PL/SQL objects.

Undo

Data Manipulation,Undo Data , Transactions and Undo Data, Storing Undo Information , Undo Data Versus Redo

Data , Monitoring Undo , Administering Undo , Configuring Undo Retention , Guaranteeing Undo Retention , Sizing the Undo Tablespace , Using the Undo Advisor.

Security (Auditing)

Industry Security Requirements, Separation of Responsibilities, Database Security, Principle of Least Privilege, Applying the Principle of Least Privilege, Monitoring for Suspicious Activity , Standard Database Auditing , Enabling Auditing, Uniform Audit Trails, Enterprise Manager Audit Page, Specifying Audit Options, Using and Maintaining Audit Information, Value-Based Auditing, Fine-Grained Auditing , FGA Policy, Audited DML Statement: Considerations, FGA Guidelines, DBA Auditing,

Proactive

Oracle optimizer, AWR(automatic workload repository), ADDM (Automatic Database Diagnostic Monitor), Advisory framework, automated maintenance tasks, Server generated alerts, Setting thresholds, Managing alerts.

Performance

Performance monitoring, managing memory components, using automatic memory management, using memory advisors.

BR_concepts

Categories of failures, understanding instance recovery, Phases of instance recovery, tuning instance recovery, Using MTTR, configuring for recoverability, multiplexing control files and redologfiles, archivelog

Backups

Oracle secure backups, user managed backups, configuring backup settings, Using RMAN, scheduling backups, managing backups, viewing backup reports, monitoring flash recovery area.

Recovery

Performing database recovery using RMAN and user managed.

Utility

Export datapump, import datapump, sql loader, external tables.

Patching

Understanding the concepts of patching in oracle.

RMAN

Configuring and using RMAN to perform backup and recovery, RMAN tuning, performing flashback using RMAN, configuring recovery catalog, database cloning using RMAN.