Oracle Training Course Content

1. SQL and PL/SQL
2. SQL Tuning for Developers
3. Oracle DBA Training in Chennai
4. Oracle RAC DBA Training in Chennai
5. Oracle DBA Data Guard Training in Chennai
6. Oracle Performance Tuning Training Classes
7. Oracle 12c Training
8. Oracle Apex Training in Chennai
9. Oracle eBusiness Suite Training
10. XML Developer

Oracle SQL Training Course Content:

Introduction

- Describe the features of Oracle Database 12c
- Describe the salient features of Oracle Cloud 12c
- Explain the theoretical and physical aspects of a relational database
- Describe Oracle servers implementation of RDBMS and object relational database management system (ORDBMS)

1. Basic DATABASE Concept and SQL

- Basic history of database concept: DBMS, RDBMS, ORDBMS
- Advantage of ORACLE database and version information
- Interface tools usage: sqlplus, isqlplus, sqldeveloper, Toad
- SQL Language overview : DQL, DML, DDL, DCL, TCL
- What is the usage of ANSI standard.
- SELECT Command - Column Alias Rules, String data,
- Concatenations with various data
- Null Value handling with number and characters,
- Arithmetic Operator
- Concatenation Operator,

- Eliminating Duplicate Rows

2. Restricting and Sorting Data

- WHERE Clause - Character Strings and Dates, number
- General Comparison Conditions = > >= < <= <>
- Other Comparison BETWEEN , IN , LIKE , NULL
- Logical Conditions AND OR NOT
- ORDER BY Clause, Sorting by Column Alias , Column Position, Multiple Columns

3. Single-Row Functions

- Character Functions: UPPER, LOWER, INITCAP, LENGTH, SUBSTR, INSTR, LPAD, RPAD, CONCAT, LTRIM, RTRIM, TRIM, REPLACE, TRANSLATE, REVERSE
- Number Functions: ROUND, TRUNC, MOD, POWER, CEIL , FLOOR, ABS
- Dates Functions: SYSDATE, MONTHS_BETWEEN, NEXT_DAY, LAST_DAY, ADD_MONTHS, ROUND, TRUNC, Arithmetic on Date
- Conversion Functions: Implicit Data-Type Conversion & Explicit Data-Type Conversion, TO_CHAR ,TO_NUMBER ,TO_DATE
- General Functions: NVL , NVL2 , NULLIF, COALESCE
- CASE Expression, DECODE
- Nested function with real-time usage

4. JOINS

- EQUI JOIN / SIMPLE JOIN / NORMAL JOIN
- ANSI JOIN, LEFT OUTER, RIGHT OUTER, FULL OUTER
- NATURAL JOIN, NATURAL OUTER JOINS
- INNER JOIN, JOIN ... USING clause, JOIN ... ON clause,
- CROSS JOIN, NON-EQUI JOIN, SELF JOIN
- ORACLE STANDARD OUTER JOINS.
- Multi table Joins, Complex Joins How to simplified complex joins.

5. Multi-row Functions

- Group Functions Rules, SUM, MIN, MAX, COUNT, AVG
- Creating Groups of Data: GROUP BY Clause

- Filtering Group Results: The HAVING Clause

6. Sub-queries

- Single-Row Subqueries- Rules, Operators : = > >= < <= <>
- Null Values in a Subquery
- Multi-Row Subqueries- Rules, Operators : IN, ANY , ALL

7. Reporting data using interface commands

- pagesize, linesize , column heading , column format , colsep
- tTitle , bTitle , break on column, spool , CSV file generation, Text file generation

8. Data Manipulation Language DML and Transaction Control Language TCL

- DML : INSERT, UPDATE, DELETE, MERGE
- TCL : COMMIT, ROLLBACK, SAVEPOINT

9. Data Definition Language - DDL

- DDL : CREATE, ALTER, RENAME, DROP, TRUNCATE
- DEFAULT OPTION.
- Constrain table copy

10. Constraints

- NOT NULL, UNIQUE, PRIMARY KEY, FOREIGN KEY, CHECK
- Column Level Constraint, Table Level Constraint Naming constraints and usage
- Adding a Constraint, Dropping a Constraint,
- Disabling Constraints, Enabling Constraints
- Validating Constraints

11. Views

- Simple Views and Complex Views , Create, Drop, Source Code
- Rules for Performing DML Operations on a View
- WITH CHECK OPTION , WITH READ ONLY
- Inline Views
- Materialized View , Create, Refresh, Drop - Usage

12. Other Database Objects

- Sequence- NEXTVAL and CURRVAL
- Index - When to Create an Index, When Not to Create an Index.
- Synonyms

13. DCL COMMANDS

- Creating Users
- Granting / Revoking Privileges
- Creating and Granting Privileges to a Role

14. Dictionary Tables

- Tables, Views, Synonyms, Index, Sequence, Constrains, Source and other Dictionary

15. SET Operators

- UNION ,
- UNION ALL ,
- INTERSECT ,
- MINUS

16. Advanced Date-time Functions

- TIME ZONES ,

- SYSDATE, SYSTIMESTAMP,
- CURRENT_DATE , CURRENT_TIMESTAMP
- SESSIONTIMEZONE ,
- Storing time zone data in Table
- EXTRACT ,
- TO_YMINTERVAL

17. Advanced GROUP BY Clause

- Group by with ROLLUP,
- Group by with CUBE,
- GROUPING SETS

18. Advanced Subqueries

- Pairwise Comparison Subquery ,
- Nonpairwise Comparison Subquery
- Correlated Subqueries,
- Correlated UPDATE,
- Correlated DELETE
- EXISTS , NOT EXISTS Operator

19. Hierarchical Retrieval

- Walking the Tree: From the Bottom Up , From the Top Down
- LEVEL Pseudo column,
- Connect by prior,

20. Multi-table Insert

- Unconditional INSERT ALL
- Conditional INSERT ALL
- Conditional FIRST INSERT

21. DATA LOADER

- SQLLDR Loading CSV file / Flat file into ORACLE table.

22. Analytic Functions

- WM_CONCAT, LAG, LEAD, RANK, DENSE_RANK
- Query_by partition_clause with sum, min, max, avg, count,
- order_by_clause with sum, min, max, avg, count,
- Psudo column : Rownum, Rowid, - Elimination duplicate data
- Connect by rownum , Connect by Level Generating random numbers, random dates,
- Quote Operator syntax and usage

23. Backup

- Export / Import SCHEMA

24. General discussion

- What is migration?
- Migration Estimating, Planning, Preparation Simple Scenario / Complex Scenario.

SQL and PL/SQL Certification

Become an Oracle Database SQL Certified Associate and demonstrate understanding of fundamental SQL concepts needed to undertake any database project.
Complete **Oracle Database SQL 1Z0-071** and **Oracle Database 11g: Program with PL/SQL 1Z0-144** to earn the **Oracle Database SQL Certified Associate Certification** and **Oracle PL/SQL Developer Certified Associate Certification**.

Oracle SQL Statement Tuning Training Course Content

Exploring the Oracle Database Architecture

- Describe the major architectural components of Oracle Database server
- Explain memory structures
- Describe background processes
- Correlate logical and physical storage structures

Introduction to SQL Tuning

- Describe what attributes of a SQL statement can make it perform poorly
- Describe the Oracle tools that can be used to tune SQL
- Explain the tuning tasks

Introduction to the Optimizer

- Describe the execution steps of a SQL statement
- Explain the need for an optimizer
- Explain the various phases of optimization
- Control the behavior of the optimizer

Interpreting Execution Plans

- Gather execution plans
- Display execution plans, display xplan
- Interpret execution plans

Application Tracing

- Configure the SQL Trace facility to collect session statistics
- Use the trcsess utility to consolidate SQL trace files
- Format trace files using the tkprof utility
- Interpret the output of the tkprof command

Optimizer Operations

- Describe the SQL operations for tables and indexes

- Describe the possible access paths for tables and indexes

Optimizer: Join Operations

- Describe the SQL operations for joins
- Describe the possible access paths for joins

Other Optimizer Operations

- Describe Clusters, In-List, Sorts, Filters and Set Operations
- Use Result Cache operations

Case Study: Star Transformation

- Define a star schema, a star query plan without transformation and a star query plan after transformation

Optimizer Statistics

- Gather optimizer statistics
- Gather system statistics
- Set statistic preferences
- Use dynamic sampling
- Manipulate optimizer statistics

Using Bind Variables

- Explain the benefits of using bind variables
- Use bind peeking
- Use adaptive cursor sharing

SQL Tuning Advisor

- Describe statement profiling
- Use SQL Tuning Advisor

Using SQL Access Advisor

- Use SQL Access Advisor

Automating SQL Tuning

- Use Automatic SQL Tuning

SQL Plan Management

- Manage SQL performance through changes
- Set up SQL Plan Management
- Set up various SQL Plan Management scenarios

Using Optimizer Hints

- Use hints when appropriate
- Specify hints for Optimizer mode, Query transformation, Access path, Join orders, Join methods and Views

Parallel Queries

Parallel Processing Concepts

- Explain what parallel processing is and why is it useful

Basics of Parallel Execution

- Describe operations that can be parallelized
- Explain parallel execution theory
- Understand impact of initiali zation parameter on parallel execution

Manual DOP Management

- Understand an explain plan of a parallel query
- Understand an explain plan of parallel DML and DDL

Simplified Auto DOP

- Understand the new parameters of Auto DOP
- Explain when to use Auto DOP
- Use Auto DOP

Statement Queuing

- Explain statement queuing, concurrency and DBRM

In-Memory Parallel execution

- Use in-memory parallel execution

Data Warehouse Administration

Partitioning Concepts

- Explain the available partitioning strategies
- Explain partition pruning
- Implement partition enhancements in star query optimization

Materialized Views

- Use summaries to improve performance
- Differentiate materialized view types

Oracle PlSQL Training Training Course Content

Introduction

- Course Objectives
- Course Agenda
- Human Resources (HR) Schema
- Introduction to SQL Developer

Introduction to PL/SQL

- PL/SQL Overview
- Benefits of PL/SQL Subprograms
- Overview of the Types of PL/SQL blocks
- Create a Simple Anonymous Block
- Generate Output from a PL/SQL Block

PL/SQL Identifiers

- List the different Types of Identifiers in a PL/SQL subprogram
- Usage of the Declarative Section to define Identifiers
- Use variables to store data
- Identify Scalar Data Types
- The %TYPE Attribute
- What are Bind Variables?
- Sequences in PL/SQL Expressions

Write Executable Statements

- Describe Basic PL/SQL Block Syntax Guidelines
- Comment Code
- Deployment of SQL Functions in PL/SQL
- How to convert Data Types?
- Nested Blocks
- Identify the Operators in PL/SQL

Interaction with the Oracle Server

- Invoke SELECT Statements in PL/SQL to Retrieve data
- Data Manipulation in the Server Using PL/SQL
- SQL Cursor concept
- Usage of SQL Cursor Attributes to Obtain Feedback on DML
- Save and Discard Transactions

Control Structures

- Conditional processing Using IF Statements
- Conditional processing Using CASE Statements
- Use simple Loop Statement
- Use While Loop Statement
- Use For Loop Statement
- Describe the Continue Statement

Composite Data Types

- Use PL/SQL Records
- The %ROWTYPE Attribute
- Insert and Update with PL/SQL Records
- Associative Arrays (INDEX BY Tables)
- Examine INDEX BY Table Methods
- Use INDEX BY Table of Records

Explicit Cursors

- What are Explicit Cursors?
- Declare the Cursor

- Open the Cursor
- Fetch data from the Cursor
- Close the Cursor
- Cursor FOR loop
- Explicit Cursor Attributes
- FOR UPDATE Clause and WHERE CURRENT Clause

Exception Handling

- Understand Exceptions
- Handle Exceptions with PL/SQL
- Trap Predefined Oracle Server Errors
- Trap Non-Predefined Oracle Server Errors
- Trap User-Defined Exceptions
- Propagate Exceptions
- RAISE_APPLICATION_ERROR Procedure

Stored Procedures and Functions

- Understand Stored Procedures and Functions
- Differentiate between anonymous blocks and subprograms
- Create a Simple Procedure
- Create a Simple Procedure with IN parameter
- Create a Simple Function
- Execute a Simple Procedure
- Execute a Simple Function

Create Stored Procedures

- Create a Modularized and Layered Subprogram Design
- Modularize Development With PL/SQL Blocks
- Describe the PL/SQL Execution Environment
- Identity the benefits of Using PL/SQL Subprograms
- List the differences Between Anonymous Blocks and Subprograms
- Create, Call, and Remove Stored Procedures Using the CREATE Command and SQL Developer
- Implement Procedures Parameters and Parameters Modes
- View Procedures Information Using the Data Dictionary Views and SQL Developer

Create Stored Functions

- Create, Call, and Remove a Stored Function Using the CREATE Command and SQL Developer
- Identity the advantages of Using Stored Functions in SQL Statements
- List the steps to create a stored function
- Implement User-Defined Functions in SQL Statements
- Identity the restrictions when calling Functions from SQL statements
- Control Side Effects when calling Functions from SQL Expressions
- View Functions Information

Create Packages

- Identity the advantages of Packages
- Describe Packages
- List the components of a Package
- Develop a Package
- How to enable visibility of a Packages components?
- Create the Package Specification and Body Using the SQL CREATE Statement and SQL Developer
- Invoke Package Constructs
- View PL/SQL Source Code Using the Data Dictionary

Packages

- Overloading Subprograms in PL/SQL
- Use the STANDARD Package
- Use Forward Declarations to Solve Illegal Procedure Reference
- Implement Package Functions in SQL and Restrictions
- Persistent State of Packages
- Persistent State of a Package Cursor
- Control Side Effects of PL/SQL Subprograms
- Invoke PL/SQL Tables of Records in Packages

Implement Oracle-Supplied Packages in Application Development

- What are Oracle-Supplied Packages?

- Examples of Some of the Oracle-Supplied Packages
- How Does the DBMS_OUTPUT Package Work?
- Use the UTL_FILE Package to Interact With Operating System Files
- Invoke the UTL_MAIL Package
- Write UTL_MAIL Subprograms

Dynamic SQL

- The Execution Flow of SQL
- What is Dynamic SQL?
- Declare Cursor Variables
- Dynamically executing a PL/SQL Block
- Configure Native Dynamic SQL to Compile PL/SQL Code
- Invoke DBMS_SQL Package
- Implement DBMS_SQL with a Parameterized DML Statement
- Dynamic SQL Functional Completeness

Design Considerations for PL/SQL Code

- Standardize Constants and Exceptions
- Understand Local Subprograms
- Write Autonomous Transactions
- Implement the NOCOPY Compiler Hint
- Invoke the PARALLEL_ENABLE Hint
- The Cross-Session PL/SQL Function Result Cache
- The DETERMINISTIC Clause with Functions
- Usage of Bulk Binding to Improve Performance

Triggers

- Describe Triggers
- Identify the Trigger Event Types and Body
- Business Application Scenarios for Implementing Triggers
- Create DML Triggers Using the CREATE TRIGGER Statement and SQL Developer
- Identify the Trigger Event Types, Body, and Firing (Timing)
- Statement Level Triggers Versus Row Level Triggers
- Create Instead of and Disabled Triggers
- How to Manage, Test, and Remove Triggers?

Create Compound, DDL, and Event Database Triggers

- What are Compound Triggers?
- Identify the Timing-Point Sections of a Table Compound Trigger
- Compound Trigger Structure for Tables and Views
- Implement a Compound Trigger to Resolve the Mutating Table Error
- Compare Database Triggers to Stored Procedures
- Create Triggers on DDL Statements
- Create Database-Event and System-Event Triggers
- System Privileges Required to Manage Triggers

The PL/SQL Compiler

- What is the PL/SQL Compiler?
- Describe the Initialization Parameters for PL/SQL Compilation
- List the New PL/SQL Compile Time Warnings
- Overview of PL/SQL Compile Time Warnings for Subprograms
- List the benefits of Compiler Warnings
- List the PL/SQL Compile Time Warning Messages Categories
- Setting the Warning Messages Levels: Using SQL Developer, PLSQL_WARNINGS Initialization Parameter, and the DBMS_WARNING Package Subprograms
- View Compiler Warnings: Using SQL Developer, SQL*Plus, or the Data Dictionary Views

Manage PL/SQL Code

- What Is Conditional Compilation?
- Implement Selection Directives
- Invoke Predefined and User-Defined Inquiry Directives
- The PLSQL_CCFLAGS Parameter and the Inquiry Directive
- Conditional Compilation Error Directives to Raise User-Defined Errors
- The DBMS_DB_VERSION Package
- Write DBMS_PREPROCESSOR Procedures to Print or Retrieve Source Text
- Obfuscation and Wrapping PL/SQL Code

Manage Dependencies

- Overview of Schema Object Dependencies
- Query Direct Object Dependencies using the USER_DEPENDENCIES View
- Query an Objects Status
- Invalidation of Dependent Objects
- Display the Direct and Indirect Dependencies
- Fine-Grained Dependency Management in Oracle Database 11g
- Understand Remote Dependencies
- Recompile a PL/SQL Program Unit

Oracle DBA Training Training Course Content

Exploring the Oracle Database Architecture

- Oracle Database Architecture Overview
- Oracle ASM Architecture Overview
- Process Architecture
- Memory structrues
- Logical and physical storage structures
- ASM storage components

Installing your Oracle Software

- Tasks of an Oracle Database Administrator
- Tools Used to Administer an Oracle Database
- Installation: System Requirements
- Oracle Universal Installer (OUI)
- Installing Oracle Grid Infrastructure
- Installing Oracle Database Software
- Silent Install

Creating an Oracle Database

- Planning the Database
- Using the DBCA to Create a Database
- Password Management
- Creating a Database Design Template
- Using the DBCA to Delete a Database

Managing the Oracle Database Instance

- Start and stop the Oracle database and components
- Use Oracle Enterprise Manager
- Access a database with SQLPlus
- Modify database installation parameters
- Describe the stages of database startup
- Describe database shutdown options
- View the alert log
- Access dynamic performance views

Manage the ASM Instance

- Set up initialization parameter files for ASM instance
- Start up and shut down ASM instances
- Administer ASM disk groups

Configuring the Oracle Network Environment

- Use Enterprise Manager to create and configure the Listener
- Enable Oracle Restart to monitor the listener
- Use tnsping to test Oracle Net connectivity
- Identify when to use shared servers and when to use dedicated servers

Managing Database Storage Structures

- Storage Structures
- How Table Data Is Stored
- Anatomy of a Database Block
- Space Management in Tablespaces
- Tablespaces in the Preconfigured Database
- Actions with Tablespaces
- Oracle Managed Files (OMF)

Administering User Security

- Database User Accounts
- Predefined Administrative Accounts
- Benefits of Roles
- Predefined Roles
- Implementing Profiles

Managing Data Concurrency

- Data Concurrency
- Enqueue Mechanism

- Resolving Lock Conflicts
- Deadlocks

Managing Undo Data

- Data Manipulation
- Transactions and Undo Data
- Undo Data Versus Redo Data
- Configuring Undo Retention

Implementing Oracle Database Auditing

- Describe DBA responsibilities for security
- Enable standard database auditing
- Specify audit options
- Review audit information
- Maintain the audit trail

Database Maintenance

- Manage optimizer statistics
- Manage the Automatic Workload Repository (AWR)
- Use the Automatic Database Diagnostic Monitor (ADDM)
- Describe and use the advisory framework
- Set alert thresholds
- Use server-generated alerts
- Use automated tasks

Performance Management

- Performance Monitoring
- Managing Memory Components
- Enabling Automatic Memory Management (AMM)
- Automatic Shared Memory Advisor
- Using Memory Advisors
- Dynamic Performance Statistics
- Troubleshooting and Tuning Views
- Invalid and Unusable Objects

Backup and Recovery Concepts

- Part of Your Job
- Statement Failure
- User Error

- Understanding Instance Recovery
- Phases of Instance Recovery
- Using the MTTR Advisor
- Media Failure
- Archive Log Files

Performing Database Backups

- Backup Solutions: Overview
- Oracle Secure Backup
- User-Managed Backup
- Terminology
- Recovery Manager (RMAN)
- Configuring Backup Settings
- Backing Up the Control File to a Trace File
- Monitoring the Flash Recovery Area

Performing Database Recovery

- Opening a Database
- Data Recovery Advisor
- Loss of a Control File
- Loss of a Redo Log File
- Data Recovery Advisor
- Data Failures
- Listing Data Failures
- Data Recovery Advisor Views

Moving Data

- Describe ways to move data
- Create and use directory objects
- Use SQL*Loader to move data
- Use external tables to move data
- General architecture of Oracle Data Pump
- Use Data Pump export and import to move data

Working with Support

- Use the Enterprise Manager Support Workbench
- Work with Oracle Support
- Log service requests (SR)
- Manage patches

Core Concepts and Tools of the Oracle Database

- The Oracle Database Architecture: Overview
- ASM Storage Concepts
- Connecting to the Database and the ASM Instance
- DBA Tools Overview

Configuring for Recoverability

- Purpose of Backup and Recovery (B&R), Typical Tasks and Terminology
- Using the Recovery Manager (RMAN)
- Configuring your Database for B&R Operations
- Configuring Archivelog Mode
- Configuring Backup Retention
- Configuring and Using a Flash Recovery Area (FRA)

Using the RMAN Recovery Catalog

- Tracking and Storing Backup Information
- Setting up a Recovery Catalog
- Recording Backups
- Using RMAN Stored Scripts
- Managing the Recovery Catalog (Backup, Export, Import, Upgrade, Drop and Virtual Private Catalog)

Configuring Backup Settings

- Configuring and Managing Persistent Settings for RMAN
- Configuring Autobackup of Control File
- Backup optimization
- Advanced Configuration Settings: Compressing Backups
- Configuring Backup and Restore for Very Large Files (Multisection)

Creating Backups with RMAN

- RMAN backup types
- Creating and Using the following:
- - Backup Sets and Image Copies
- - Whole Database Backup
- - Fast Incremental Backup
- - Configure Backup Destinations
- - Duplexed Backup Sets
- - Archival Backups

Restore and Recovery Task

- Restoring and Recovering
- Causes of File Loss
- Automatic Tempfile Recovery
- Recovering from the Loss of a Redo Log Group
- Recovering from a Lost Index Tablespace
- Re-creating a Password Authentication File
- Complete and Incomplete Recovery
- Other Recovery Operations

Using RMAN to Perform Recovery

- Complete Recovery after Loss of a Critical or Noncritical Data File
- Recovering Image Copies and Switching Files
- Restore and Recovery of a Database in NOARCHIVELOG Mode
- Incomplete Recovery
- Performing Recovery with a Backup Control File
- Restoring from Autobackup: Server Parameter File and Control File
- Restoring and Recovering the Database on a New Host

Monitoring and Tuning RMAN

- Monitoring RMAN Jobs
- Balance Between Speed of Backup Versus Speed of Recovery
- RMAN Multiplexing
- Synchronous and Asynchronous I/O
- Explaining Performance Impact of MAXPIECESIZE, FILESPERSET, MAXOPENFILES and BACKUP DURATION

Diagnosing the Database

- Data Recovery Advisor (DRA)
- Block Corruption
- Automatic Diagnostic Repository (ADR)
- Health Monitor
- The ADR Command-Line Tool, ADRCI

Using Flashback Technology I

- Flashback Technology: Overview and Setup
- Using Flashback Technology to Query Data
- Flashback Table
- Flashback Transaction Query
- Performing Flashback Transaction Backout

Using Flashback Technology II

- Oracle Total Recall
- Flashback Drop and the Recycle Bin

Performing Flashback Database

- Configuring Flashback Database
- Performing Flashback Database Operations
- Monitoring Flashback Database

Managing Memory

- Oracle Memory Structures
- Oracle Database Memory Parameters
- Using Automatic Memory Management
- Automatic Shared Memory Management
- Using Memory Advisors
- Using Data Dictionary Views

Managing Database Performance

- Tuning Activities
- Using Statistic Preferences
- Optimizer Statistics Collection
- Monitor the Performance of Sessions and Services
- Automatic Workload Repository (AWR)
- Describing the Benefits of Database Replay

Managing Performance by SQL Tuning

- SQL Tuning and SQL Advisors
- Using SQL Tuning Advisor
- SQL Access Advisor
- SQL Performance Analyzer Overview

Managing Resources

- Database Resource Manager: Overview and Concepts
- Accessing and Creating Resource Plans
- Creating Consumer Group
- Specifying Resource Plan Directives, including:
- - Limiting CPU Utilization at the Database Level
- - Instance Caging

- Activating a Resource Plan
- Monitoring the Resource Manager

Automating Tasks with the Scheduler

- Simplifying Management Tasks
- Creating a Job, Program, and Schedule
- Using Time-Based, Event-Based, and Complex Schedules
- Describing the Use of Windows, Window Groups, Job Classes, and Consumer Groups
- Multi-Destination Jobs

Managing Space in Blocks

- Free Space Management
- Monitoring Space
- Compressing Data

Managing Space in Segments

- Segment Creation on Demand
- Additional Automatic Space-Saving Functionalit
- Shrinking Segments
- Segment Advisor
- Managing Resumable Space Allocation

Managing Space for the Database

- Using 4 KB-Sector Disks
- Transporting Tablespaces
- Transporting Databases

Duplicating a Database

- Purpose and Methods of Cloning a Database
- Using RMAN to Create a Duplicate Database
- Cloning a Database from a Backup
- Duplicate a Database Based on a Running Instance
- Targetless Duplicating a Database

Oracle DBA Performance Tuning Training in Chennai

Basic Tuning Tools

- Monitoring tools overview
- Enterprise Manager
- V$ Views, Statistics and Metrics
- Wait Events

Using Automatic Workload Repository

- Managing the Automatic Workload RepositoryCreate AWR Snapshots
- Real Time SQL Monitoring (a 11.1 feature new lesson in NF L-15)

Defining Problems

- Defining the Problem
- Limit the Scope & Setting the Priority
- Top SQL Reports
- Common Tuning Problems & Tuning During the Life Cycle
- ADDM Tuning Session
- Performance Versus Business Requirements
- Performance Tuning Resources & Filing a Performance Service Request
- Monitoring and Tuning Tools: Overview

Using Metrics and Alerts

- Metrics, Alerts, and Baselines
- Limitation of Base Statistics & Typical Delta Tools
- Oracle Database 11g Solution: Metrics
- Benefits of Metrics
- Viewing Metric History Information & Vsing EM to View Metric Details
- Statistic Histograms & Histogram Views
- Database Control Usage Model & Setting Thresholds
- Server-Generated Alerts, Creating and Testing an Alert & Metric and Alert Views

Using Baselines

- Comparative Performance Analysis with AWR Baselines
- Automatic Workload Repository Baselines
- Moving Window Baseline
- Baselines in Performance Page Settings & Baseline Templates
- AWR Baselines & Creating AWR Baselines
- Managing Baselines with PL/SQL & Baseline Views
- Performance Monitoring and Baselines & Defining Alert Thresholds Using a Static Baseline
- Using EM to Quickly Configure & Changing Adaptive Threshold Settings

Using AWR Based Tools

- Automatic Maintenance Tasks
- ADDM Performance Monitoring
- Active Session History: Overview

Monitoring an Application

- What Is a Service? Service Attributes & Service Types
- Creating Services & Managing Services in a Single-Instance Environment
- Everything Switches to Services.
- Using Services with Client Applications & Using Services with the Resource Manager
- Services and Resource Manager with EM & Using Services with the Scheduler
- Using Services with Parallel Operations & Metric Thresholds
- Service Aggregation and Tracing & Service Aggregation Configuration.
- Client Identifier Aggregation and Tracing & Service Performance Views

Identifying Problem SQL Statements

- SQL Statement Processing Phases & Role of the Oracle Optimizer
- Identifying Bad SQL, Real Time SQL Monitoring (a 11.1 feature new lesson in NF L-15) & TOP SQL Reports
- What Is an Execution Plan? Methods for Viewing Execution Plans & Uses of Execution Plans
- DBMS_XPLAN Package: Overview & EXPLAIN PLAN Command
- Reading an Execution Plan, Using the V$SQL_PLAN View & Querying the AWR
- SQL*Plus AUTOTRACE & SQL Trace Facility
- How to Use the SQL Trace Facility
- Generate an Optimizer Trace

Influencing the Optimizer

- Functions of the Query Optimizer, Selectivity, Cardinality and Cost & Changing Optimizer Behavior
- Using Hints, Optimizer Statistics & Extended Statistics
- Controlling the Behavior of the Optimizer with Parameters
- Enabling Query Optimizer Features & Influencing the Optimizer Approach
- Optimizing SQL Statements, Access Paths & Choosing an Access Path
- Join & Sort Operations
- How the Query Optimizer Chooses Execution Plans for Joins
- Reducing the Cost

Using SQL Performance Analyzer

- Real Application Testing: Overview & Use Cases

- SQL Performance Analyzer: Process & Capturing the SQL Workload
- Creating a SQL Performance Analyzer Task & SPA (NF Lesson 9) DBMS_SQLTUNE.CREATE_TUNING_TASK
- Optimizer Upgrade Simulation & SQL Performance Analyzer Task Page
- Comparison Report & Comparison Report SQL Detail
- Tuning Regressing Statements & Preventing Regressions
- Parameter Change Analysis & Guided Workflow Analysis
- SQL Performance Analyzer: PL/SQL Example & Data Dictionary Views

SQL Performance Management

- Maintaining SQL Performance and Optimizer Statistics & Automated Maintenance Tasks
- Statistic Gathering Options & Setting Statistic Preferences
- Restore Statistics
- Deferred Statistics Publishing: Overview & Example
- Automatic SQL Tuning: Overview
- SQL Tuning Advisor: Overview
- Using the SQL Access Advisor
- SQL Plan Management: Overview

Using Database Replay

- The Big Picture & System Architecture
- Capture & Replay Considerations
- Replay Options & Analysis
- Database Replay Workflow in Enterprise Manager
- Packages and Procedures
- Data Dictionary Views: Database Replay
- Database Replay: PL/SQL Example
- Calibrating Replay Clients

Tuning the Shared Pool

- Shared Pool Architecture & Operation
- The Library Cache & Latch and Mutex
- Diagnostic Tools for Tuning the Shared Pool
- Avoiding Hard & Soft Parses
- Sizing the Shared Pool & Avoiding Fragmentation
- Data Dictionary Cache & SQL Query Result Cache
- UGA and Oracle Shared Server
- Large Pool & Tuning the Large Pool

Tuning the Buffer Cache

- Oracle Database Architecture: Buffer Cache

- Database Buffers
- Buffer Hash Table for Lookups
- Working Sets
- Buffer Cache Tuning Goals and Techniques
- Buffer Cache Performance Symptoms & Solutions
- Automatically Tuned Multiblock Reads
- Flushing the Buffer Cache (for Testing Only)

Tuning PGA and Temporary Space

- SQL Memory Usage & Performance Impact
- SQL Memory Manager
- Configuring Automatic PGA Memory & Setting PGA_AGGREGATE_TARGET Initially
- Monitoring & Tuning SQL Memory Usage
- PGA Target Advice Statistics & Histograms
- Automatic PGA and Enterprise Manager & Automatic PGA and AWR Reports
- Temporary Tablespace Management: Overview & Monitoring Temporary Tablespace
- Temporary Tablespace Shrink & Tablespace Option for Creating Temporary Table

Automatic Memory Management

- Oracle Database Architecture, Dynamic SGA & Memory Advisories
- Granule & Manually Adding Granules to Components
- Increasing the Size of an SGA Component, SGA Sizing Parameters & Manually Resizing Dynamic SGA Parameters
- Automatic Shared Memory Management & Memory Broker Architecture
- Behavior of Auto-Tuned & Manually TunedSGA Parameters
- Using the V$PARAMETER View & Resizing SGA_TARGET
- Disabling, Configuring & Monitoring Automatic Shared Memory Management (ASMM)
- Automatic Memory Management

Tuning Segment Space Usage

- Space and Extent Management & Locally Managed Extents
- How Table Data Is Stored & Anatomy of a Database Block
- Minimize Block Visits
- The DB_BLOCK_SIZE Parameter
- Small & Large Block Size: Considerations
- Block Allocation, Free Lists & Block Space Management with Free Lists
- Automatic Segment Space Management
- Migration and Chaining, Shrinking Segments & Table Compression: Overview

Tuning I/O

- I/O Architecture, File System Characteristics, I/O Modes & Direct I/O
- Bandwidth Versus Size & Important I/O Metrics for Oracle Databases
- I/O Calibration and Enterprise Manager, I/O Calibration and the PL/SQL Interface & I/O Statistics and Enterprise Manager
- Stripe and Mirror Everything
- Using RAID
- I/O Diagnostics
- Database I/O Tuning
- What Is Automatic Storage Management?

Performance Tuning Summary

- Best practices identified throughout the course
- Summarize the performance tuning methodology

Using Statspack

- Installing Statspack
- Capturing Statspack Snapshots
- Reporting with Statspack
- Statspack Considerations
- Statspack and AWR Reports
- Reading a Statspack Report
- Statspack and AWR

Oracle DBA Data Guard Training Course Content

Introduction to Oracle Data Guard

- Causes of Data Loss
- Oracle Data Guard Architecture
- Types of Standby Databases (benefits of each type)
- Using the Data Guard Broker
- Differentiating Between Standby Databases and Data Guard Broker Configuration
- Data Protection Modes
- Performing Role Transitions

Creating a Physical Standby Database by Using SQL and RMAN Commands

- Preparing the Primary Database

- Creating the Physical Standby Database

Oracle Data Guard Broker: Overview

- Oracle Data Guard Broker Features
- Oracle Data Guard Broker Configurations
- Data Guard Monitor Process
- Data Guard Monitor Configuration Files
- Benefits of Using the Data Guard Broker
- Comparing Configuration Management With and Without the Broker
- Using DGMGRL

Creating a Data Guard Broker Configuration

- Defining a Data Guard Configuration (overview)
- Setting up the Broker Configuration Files
- Setting the DG_BROKER_START Initialization Parameter to TRUE to start the Data Guard Broker
- Creating the Broker Configuration
- Adding the Standby Database to the Configuration

Creating a Physical Standby Database by Using Enterprise Manager Grid Control

- Using Enterprise Manager Grid Control to Create a Physical Standby Database
- Using the Add Standby Database Wizard
- Verifying a Configuration
- Editing Standby database properties
- Viewing the Data Guard Configuration Status

Creating a Logical Standby Database

- Monitoring the Data Guard Configuration by Using Enterprise Manager Grid ControlVerifying the ConfigurationViewing Log File Details
- Using Enterprise Manager Data Guard Metrics
- Using the DGMGRL SHOW CONFIGURATION Command to Monitor the Configuration
- Viewing Standby Redo Log Information
- Monitoring Redo Apply

Creating and Managing a Snapshot Standby Database

- Snapshot Standby Database: Architecture
- Converting a Physical Standby Database to a Snapshot Standby Database

- Activating a Snapshot Standby Database: Issues and Cautions
- Viewing Snapshot Standby Database Information
- Converting a Snapshot Standby Database to a Physical Standby Database

Using Oracle Active Data Guard

- Using Real-Time Query
- Enabling and Disabling Real-Time Query
- Enabling Block Change Tracking on a Physical Standby Database
- Creating Fast Incremental Backups
- Monitoring Block Change Tracking

Configuring Data Protection Modes

- Preparing to Create a Logical Standby Database
- Checking for Unsupported Objects , Data Types, and Tables
- Ensuring Unique Row Identifiers
- Creating the Logical Standby Using SQL Commands and Grid Control
- Securing your Logical Standby Database

Performing Role Transitions

- Contrast switchover vs. failover
- Preparing for a Switchover
- Performing a Switchover using DGMGRL and Enterprise Manager
- Types of Failovers
- Re-enabling Disabled Databases

Using Flashback Database in a Data Guard Configuration

- Overview of Flashback Database
- Configuring Flashback Database
- Using Flashback Database Instead of Apply Delay
- Using Flashback Database and Real Time Apply
- Flashback Through Standby Database Role Transitions
- Using Flashback Database After Failover

Enabling Fast-Start Failover

- Installing the Observer Software
- Configuring Fast-Start Failover
- Configuring Automatic Reinstatement of the Primary Database
- Initiating Fast-Start Failover from an Application
- Disabling Fast-Start Failover

- Starting and Stopping the Observer
- Moving the Observer to a new Host

Managing Client Connectivity

- Understanding Client Connectivity in a Data Guard Configuration
- Preventing Clients from Connecting to the Wrong Database
- Creating Services for the Data Guard Configuration Databases
- Automating Client Failover in a Data Guard Configuration
- Automating Failover for OCI Clients
- Automating Failover for OLE DB Clients
- Configuring JDBC Clients for Failover

Performing Backup and Recovery Considerations in an Oracle Data Guard Configuration

- Backup and Recovery of a Logical Standby Database
- Using the RMAN Recovery Catalog in a Data Guard Configuration
- Creating the Recovery Catalog
- Registering a Database in the Recovery Catalog
- Configuring Daily Incremental Backups
- Using a Backup to Recover a Data File on the Primary Database
- Recovering a Data File on the Standby Database

Patching and Upgrading Databases in a Data Guard Configuration

- Upgrading an Oracle Data Guard Broker Configuration
- Using SQL Apply to Upgrade the Oracle Database
- Performing a Rolling Upgrade by Using SQL Apply
- Performing a Rolling Upgrade by Using an Existing Logical Standby Database
- Performing a Rolling Upgrade by Creating a New Logical Standby Database
- Performing a Rolling Upgrade by Using a Physical Standby Database

Monitoring a Data Guard Configuration

- Monitoring the Data Guard Configuration by Using Enterprise Manager Grid ControlVerifying the ConfigurationViewing Log File Details
- Using Enterprise Manager Data Guard Metrics
- Using the DGMGRL SHOW CONFIGURATION Command to Monitor the Configuration
- Viewing Standby Redo Log Information
- Monitoring Redo Apply

Optimizing a Data Guard Configuration

- Using Enterprise Manager Grid Control to monitor configuration performance
- Setting the ReopenSecs and NetTimeout database properties
- Compressing Redo Data
- Delaying the Application of Redo Data
- Optimizing SQL Apply
- Adjusting the Number of APPLIER and PREPARER processes

"Oracle Certified Professionals earn 28% more money than the average IT certified professionals."

Oracle PLQL Developer - Current Career & Job Openings for Experienced Professional

VirtusaPolaris Address

'Foundation' 34,
IT Highway Navalur
Chennai- 603 103
India
Phone: 91-4114-235001
Fax: 91-4114-235166

Oracle PLQL Developer - Current Career & Job Openings for Experienced Professional

Job Description

3i Infotech Ltd hiring for Pl\sql developers

Primary Skill : Oracle plsql.

Experience in Collections & tuning added advantage.

candidates from development background are preferred.

Experience : 3- 5Yrs
Location : Chennai
Time : 10-6PM

Contact Person : Vivek
Interested candidates can directly walk-in to below mention venue:

Venue Details:

3i Infotech Ltd
3rd Floor,
Prince Infocity - II
Rajiv Gandhi Salai (OMR)
Kandanchavadi Chennai - 600096

Thanks & Regards,
Vivekanandan S | HRMG | 3i-infotech.
Telephone:04471622577

Oracle PLQL Developer - Current Career & Job Openings for Freshers

Job Description

Sunoida Solutions is one of the fastest growing Business Intelligence and Analytics Company in the emerging markets

* should know plsql / oracle queries
* must be a graduate

Interview date : 29th Wednesday & 30th Thursday
Time : 11am to 4pm

Job Location: Guindy
Vacancies: 10
Salary : Best in the industry and other benefits

Sunoida Solutions Pvt. Ltd.
No 4 Bhuvaneswari Complex Dr.
Thomas Road, T.Nagar
Chennai 600 017,

Regards
Bharath
HR Dept
Chennai

PL/SQL New Features and Enhancements in Oracle Database 12c Release 1 (12.1)

Greens Technologys, Oracle 12c training includes a number of PL/SQL new features and enhancements with real time project scenario.

Greens Technologys, Oracle Database 12c Advanced PL/SQL training teaches you how to use the advanced features of PL/SQL to design and tune PL/SQL to interface with the database and other applications. Expert instructors will help you explore advanced features of program design, packages, cursors, extended interface methods and collections. In this Oracle training center in Chennai, you will be introduced to Oracle Database Exadata Express Cloud Service.

Topics covered in Oracle 12c training

- Design PL/SQL packages and program units that execute efficiently
- Write code to interface with external applications and the operating system
- Create PL/SQL applications that use collections
- Write and tune PL/SQL code effectively to maximize performance
- Implement a virtual private database with fine-grained access control
- Write code to interface with large objects and use SecureFile LOBs
- Gain an understanding of the Oracle Database Exadata Express Cloud Service
- Invoker Rights Functions Can Be Result-Cached
- Libraries Defined Using Directory Objects and Credentials
- New Predefined Inquiry Directives ($$PLSQL_UNIT_OWNER, $$PLSQL_UNIT_TYPE)
- PLSQL_DEBUG Compilation Parameter is Deprecated
- PL/SQL Packages and Types Reference
- Code Based Access Control (CBAC) : Granting Roles to PL/SQL Program Units in Oracle Database 12 Release 1 (12.1)
- Control Invoker Rights Privileges for PL/SQL Code in Oracle Database 12c Release 1 (12.1) (INHERIT [ANY] PRIVILEGES)
- Control Invoker Rights Privileges in Views in Oracle Database 12c Release 1 (12.1) (BEQUEATH CURRENT_USER)
- Edition-Based Redefinition Enhancements in Oracle Database 12c Release 1 (12.1)
- Extended Data Types in Oracle Database 12c Release 1 (12.1)
- Implicit Statement Results in Oracle Database 12c Release 1 (12.1) (DBMS_SQL.RETURN_RESULT and DBMS_SQL.GET_NEXT_RESULT)
- Invisible Columns in Oracle Database 12c Release 1 (12.1)

- Multitenant : Database Triggers on Pluggable Databases (PDBs) in Oracle 12c Release 1 (12.1)
- WITH Clause Enhancements in Oracle Database 12c Release 1 (12.1)
- PL/SQL-to-SQL Interface Enhancements for PL/SQL-Only Data Types in Oracle Database 12c Release 1 (12.1)
- PL/SQL White Lists Using the ACCESSIBLE BY Clause in Oracle Database 12c Release 1 (12.1)
- Using the TABLE Operator with Locally Defined Types in PL/SQL
- UTL_CALL_STACK : Get Detailed Information About the Currently Running Subprogram in Oracle Database 12c Release 1 (12.1)