

Course Topics(SQL10g)

Introduction

List the Oracle Database 10g Main Features
An Overview of: components, internet platform, apps server and developer suite
Describe Relational and Object Relational Database Designs
Review the System Development Life Cycle
Define the term Data Models
Describe different means of Sorting Data
Show how Multiple Tables can be related
Describe how SQL Communicates to the Database

Writing SQL SELECT Statements

Define projection, selection, and join terminology
Review the basic SQL SELECT statement syntax
Select all columns using a wildcard notation from a table
State simple rules and guidelines for writing SQL statements

Write a query containing the arithmetic operators
Create a character expression with the concatenation operator

Using the Oracle SQL Developer Environment

Restricting and Sorting Data

Limit rows using a selection
Using the WHERE clause to retrieve specific rows
Using the comparison conditions in the WHERE clause
Use the LIKE condition to compare literal values
List the logical conditions AND, OR, NOT
Describe the rules of precedence for the conditions
Sort rows with the ORDER BY clause
Use ampersand substitution to restrict and sort output at run time

Using Single-Row Functions to Customize Output

Show the differences between single row and multiple row SQL functions
Categorize the character functions into case manipulation and character manipulation types
Use the character manipulation functions in the SELECT and WHERE clauses
Explain and use the DATE and numeric functions
Use the SYSDATE function to retrieve the current date in the default format
Introduce the DUAL table as a means to view function results
List the rules for applying the arithmetic operators on dates
Use the arithmetic operators with dates in the SELECT clause

Reporting Aggregated Data Using the Group Functions

Describe and categorize the group functions
Use the group functions

Utilize the DISTINCT keyword with the group functions

Describe how nulls are handled with the group functions

Create groups of data with the GROUP BY clause

Group data by more than one column

Avoid illegal queries with the group functions

Exclude groups of data with the HAVING clause

Displaying Data from Multiple Tables

Identify Types of Joins

Retrieve Records with Natural Joins

Use Table Aliases to write shorter code and explicitly identify columns from multiple tables

Create a Join with the USING clause to identify specific columns between tables

Use the ON clause to specify arbitrary conditions or specify columns to Join
Create a Three-way join with the ON clause to retrieve information from 3 tables

List the Types of Outer Joins LEFT, RIGHT, and FULL

Generating a Cartesian Product

Using Sub queries to Solve Queries

List the syntax for sub queries in a SELECT statements WHERE clause

List the guidelines for using sub queries

Describe the types of sub queries

Execute single row sub queries and use the group functions in a sub query

Identify illegal statements with sub queries

Execute multiple row sub queries

Analyze how the ANY and ALL operators work in multiple row sub queries

Using the SET Operators

Use the UNION operator to return all rows from multiple tables and eliminate any duplicate rows

Use the UNION ALL operator to return all rows from multiple tables

Describe the INTERSECT operator

Use the INTERSECT operator

Explain the MINUS operator

Use the MINUS operator

List the SET operator guidelines

Order results when using the UNION operator

Manipulating Data

Write INSERT statements to add rows to a table

Copy rows from another table

Create UPDATE statements to change data in a table

Generate DELETE statements to remove rows from a table

Use a script to manipulate data

Save and discard changes to a table through transaction processing

Course Topics(SQL10g)

Show how read consistency works
Describe the TRUNCATE statement

Using DDL Statements to Create and Manage Tables

List the main database objects and describe the naming rules for database objects
Introduce the schema concept
Display the basic syntax for creating a table and show the DEFAULT option
Explain the different types of constraints
Show resulting exceptions when constraints are violated with DML statements
Create a table with a sub query
Describe the ALTER TABLE functionality
Remove a table with the DROP statement and
Rename a table

Creating Other Schema Objects

Categorize simple and complex views and compare them
Create a view
Retrieve data from a view
Explain a read-only view
List the rules for performing DML on complex views
Create a sequence
List the basic rules for when to create and not create an index
Create a synonym

Managing Objects with Data Dictionary Views

Describe the structure of each of the dictionary views
List the purpose of each of the dictionary views
Write queries that retrieve information from the dictionary views on the schema objects
Use the COMMENT command to document objects

Controlling User Access

Controlling User Access
System versus Objects Privileges
Using Roles to define user groups
Changing Your Password
Granting Object Privileges
Confirming Privileges Granted
Revoking Object Privileges
Using Database Links

Manage Schema Objects

Using the ALTER TABLE statement
Adding a Column
Modifying a Column
Dropping a Column, Set Column UNUSED
Adding, Enabling and Disabling Constraints
Creating Function-Based Indexes
Performing FLASHBACK operations
External Tables

Manipulating Large Data Sets

Using the MERGE Statement

Performing DML with Sub queries
Performing DML with a RETURNING Clause
Overview of Multi-table INSERT Statements
Tracking Changes in DML
Generating Reports by Grouping Related Data
Overview of GROUP BY Clause
Overview of Having Clause
Aggregating data with ROLLUP and CUBE Operators
Determine subtotal groups using GROUPING Functions
Compute multiple groupings with GROUPING SETS
Define levels of aggregation with Composite Columns
Create combinations with Concatenated Groupings
Managing Data in Different Time Zones
Time Zones
Using date and time functions
Identifying TIMESTAMP Data Types
Differentiating between DATE and TIMESTAMP
Performing Conversion Operations
Searching Data Using Advanced Sub queries
Sub query Overview
Using a Sub query
Comparing several columns using Multiple-Column Sub queries
Defining a Data source Using a Sub query in the FROM Clause
Returning one Value using Scalar Sub query Expressions
Performing ROW by-row processing with Correlated Sub queries
Reusing query blocks using the WITH Clause
Hierarchical Retrieval
Sample Data from the EMPLOYEES Table
The Tree Structure of Employee data
Hierarchical Queries
Ranking Rows with LEVEL
Formatting Hierarchical Reports Using LEVEL and LPAD
Pruning Branches with the WHERE and CONNECT BY clauses
Regular Expression Support
Regular Expression Support Overview
Describing simple and complex patterns for searching and manipulating data

Course Topics(PL/SQL 10g)

Introduction to PL/SQL

What is PL/SQL
PL/SQL Environment
Benefits of PL/SQL
Overview of the Types of PL/SQL blocks
Create and Execute a Simple Anonymous Block
Generate Output from a PL/SQL Block
SQL Developer as PL/SQL Programming Environment

Declaring PL/SQL Identifiers

Identify the Different Types of Identifiers in a PL/SQL subprogram
Use the Declarative Section to Define Identifiers
List the Uses for Variables
Store Data in Variables
Declare PL/SQL Variables

Writing Executable Statements

Describe Basic Block Syntax Guidelines
Use Literals in PL/SQL
Customize Identifier Assignments with SQL Functions
Use Nested Blocks as Statements
Reference an Identifier Value in a Nested Block
Qualify an Identifier with a Label
Use Operators in PL/SQL
Use Proper PL/SQL Block Syntax and Guidelines

Interacting with the Oracle Server

Identify the SQL Statements You Can Use in PL/SQL
Include SELECT Statements in PL/SQL
Retrieve Data in PL/SQL with the SELECT Statement
Avoid Errors by Using Naming Conventions When Using Retrieval and DML Statements
Manipulate Data in the Server Using PL/SQL
The SQL Cursor concept
Use SQL Cursor Attributes to Obtain Feedback on DML
Save and Discard Transactions

Writing Control Structures

Control PL/SQL Flow of Execution
Conditional processing Using IF Statements
Conditional Processing CASE Statements
Handle Nulls to Avoid Common Mistakes
Build Boolean Conditions with Logical Operators
Use Iterative Control with Looping Statements

Working with Composite Data Types

Learn the Composite Data Types of PL/SQL
Records and Tables
Use PL/SQL Records to Hold Multiple Values of Different Types

Inserting and Updating with PL/SQL Records
Use INDEX BY Tables to Hold Multiple Values of the Same Data Type

Using Explicit Cursors

Cursor FOR Loops Using Sub-queries
Increase the Flexibility of Cursors By Using Parameters
Use the FOR UPDATE Clause to Lock Rows
Use the WHERE CURRENT Clause to Reference the Current Row

Use Explicit Cursors to Process Rows

Explicit Cursor Attributes

Cursors and Records

Handling Exceptions

Handling Exceptions with PL/SQL
Predefined Exceptions
Trapping Non-predefined Oracle Server Errors
Functions that Return Information on Encountered Exceptions

Trapping User-Defined Exceptions

Propagate Exceptions

Use The RAISE_APPLICATION_ERROR Procedure To Report Errors To Applications

Creating Stored Procedures

Describe the block structure for PL/SQL stored procedures
Invoke a stored procedure/function from different tools

Call a stored procedure with host variables from SQL*Plus, Forms, Java, C, etc

Invoke a stored procedure from an anonymous block or another stored procedure

List the CREATE OR REPLACE PROCEDURE syntax

Identify the development steps for creating a stored procedure

Use the SHOW ERRORS command

View source code in the USER_SOURCE dictionary view

Creating Stored Functions

Describe stored functions

List the CREATE OR REPLACE FUNCTION syntax
Identify the steps to create a stored function

Execute a stored function

Identify the advantages of using stored functions in SQL statements

Identify the restrictions of calling functions from SQL statements

Remove a function

Course Topics(PL/SQL 10g)

Creating Packages

- List the advantages of packages
- Describe packages
- Show the components of a package Diagram the visibility of constructs within a package
- Develop a package
- Create the package specification
- Declare public constructs
- Create the package body

Using More Package Concepts

- List the benefits of overloading
- Show overloading example
- Use forward declarations in packages
- Create a one-time only procedure (package code initialization)
- List the restrictions on package functions used in SQL
- Encapsulate code in a package demonstration
- Invoke a user-defined package function from a SQL statement

Utilize the persistent state of package variables

Utilizing Oracle Supplied Packages in Application Development

- List the various uses for the Oracle supplied packages
- Reuse pre-packaged code to complete various tasks from developer to DBA purposes
- Use the DESCRIBE command to view the package specifications and overloading
- Explain how DBMS_OUTPUT works (in conjunction with SET SERVEROUTPUT ON)
- Interact with operating system files with UTL_MAIL
- Describe file processing with UTL_FILE
- Review UTL_FILE routines and exceptions
- Use UTL_FILE to generate a report to a file

Dynamic SQL and Metadata

- Describe using native dynamic SQL
- List the execution flow of SQL
- Show the syntax for the EXECUTE IMMEDIATE statement for native dynamic SQL
- Create a procedure to generate native dynamic SQL using EXECUTE IMMEDIATE to delete rows from a table
- Describe the DBMS_SQL package
- Provide an example of DBMS_SQL
- List the advantages of using Native Dynamic SQL
- Over the DBMS_SQL package

Design Considerations for PL/SQL Code

- Standardize constants with a constant package
- Standardize exceptions with an exception handling package
- Introduce local sub-programs
- Use local sub-programs

- Track run time errors with an exception package
- Describe the NOCOPY compiler hint
- Use the NOCOPY compiler hint
- Explain the effects of NOCOPY

Managing Dependencies

- Define dependent and referenced objects
- Diagram dependencies with code, views, procedures, and tables
- Manage local dependencies between a procedure, view, and a table
- Analyze a scenario of local dependencies
- Display direct dependencies using the USER_DEPENDENCIES view
- Run the UTL_DTREE.SQL script to create objects that enable you to view direct and indirect dependencies
- Predict the effects of changes on dependent objects

Manipulating Large Objects

- Describe a LOB object
- Diagram the anatomy of a LOB
- Manage and list the features on internal LOBs
- Describe, manage, and secure BFILES
- Create and use the DIRECTORY object to access and use BFILES
- Prepare BFILES for usage
- Use the BFILENAME function to load BFILES
- Describe the DBMS_LOB package

Creating Triggers

- Describe the different types of triggers and how they execute
- List the benefits and guidelines of using database triggers
- Show how triggers are executed with a basic database trigger example
- Show syntax and create DML triggers, and list the DML trigger components
- Explain the firing sequence of triggers
- Create a DML statement and row level triggers
- Use the OLD and NEW qualifiers to reference column values
- Use conditional predicates with triggers

Applications for Triggers

- Create triggers for DDL events of CREATE, ALTER, and DROP
- Create triggers for system events of SERVERERROR, STARTUP, SHUTDOWN, LOGON and LOGOFF
- Define a mutating table
- Describe business application scenarios for implementing with triggers
- Describe the privileges required to manage triggers

Understanding and Influencing the PL/SQL Compiler

List the features of native compilation

Describe the features of the PL/SQL compiler in Oracle Database 10g

Identify the 3 parameters used to influence compilation (PLSQL_CODE_TYPE, PLSQL_DEBUG, PLSQL_OPTIMIZE_LEVEL)

Show how to set the parameters

Describe the dictionary view used to see how code is compiled (USER_PLSQL_OBJECTS)

Change the parameter settings, recompile code, and view the results

Describe the compiler warning infrastructure in Oracle Database 10g

List the steps used in setting compiler warning levels

Course Topics(Forms 10g)

Introducing Oracle Forms Developer and Forms Services

Grid Computing
Oracle 10g Products
Oracle Application Server 10g Architecture
Benefits and Components of Oracle Developer Suite 10g
Running a Forms Developer Application
Working in the Forms Developer Environment

Creating Forms Modules

Creating a Basic Forms Module
Creating a Master-Detail Forms Module
Modifying the Data Block
Modifying the Layout

Working with Data Blocks and Frames

Using the Property Palette
Managing Object Properties
Creating and Using Visual Attributes
Controlling the Behavior and Appearance of Data Blocks
Controlling Frame Properties
Creating Control Blocks
Deleting Data Blocks

Working with Input Items

Creating Text Items
Controlling the Behavior and Appearance of Text Items
Creating LOVs
Defining Editors
Creating Check Boxes
Creating List Items
Creating Radio Groups

Working with Non Input Items

Creating a Display Item
Creating an Image Item
Creating a Push Button
Creating a Calculated Item
Creating a Hierarchical Tree Item
Creating a Bean Area Item

Working with Windows and Canvases

Overview of Windows and Canvases
Displaying a Forms Module in Multiple Windows
Creating a New Window
Displaying a Forms Module on Multiple Layouts
Creating a New Content Canvas
Creating a New Stacked Canvas
Creating a New Toolbar Canvas
Creating a New Tab Canvas

Producing Triggers

Grouping Triggers into Categories
Defining Trigger Components: Type, Code, and Scope
Specifying Execution Hierarchy

Using the PL/SQL Editor
Writing Trigger Code
Using Variables and Built-ins
Using the When-Button-Pressed and When-Window-Closed Triggers

Debugging Triggers

The Debugging Process
The Debug Console
Setting Breakpoints
Debugging Tips
Running a Form in Debug Mode
Stepping through Code

Adding Functionality to Items

Coding Item Interaction Triggers
Defining Functionality for Check Boxes
Changing List Items at Run Time
Displaying LOVs from Buttons
Populating Image Items
Populating and Displaying Hierarchical Trees
Interacting with JavaBeans

Run-Time Messages and Alerts

Built-ins and Handling Errors
Controlling System Messages
The FORM_TRIGGER_FAILURE Exception
Using Triggers to Intercept System Messages
Creating and Controlling Alerts
Handling Server Errors

Query Triggers

SELECT Statements Issued During Query Processing
WHERE and ORDER BY Clauses and the ONETIME_WHERE Property
Writing Query Triggers
Query Array Processing
Coding Triggers for Enter-Query Mode
Overriding Default Query Processing
Obtaining Query Information at Run Time

Validation

Validation Process
Controlling Validation Using Properties
Controlling Validation Using Triggers
Performing Client-Side Validation with PJC's
Tracking Validation Status
Using Built-ins to Control When Validation Occurs

Navigation

Navigation Overview
Understanding Internal Navigation
Using Object Properties to Control Navigation
Writing Navigation Triggers: When-New--Instance, Pre- and Post- Triggers
The Navigation Trap
Using Navigation Built-ins in Triggers

Transaction Processing

The Commit Sequence of Events
Characteristics and Common Uses of Commit
Triggers
Testing the Results of Trigger DML
DML Statements Issued During Commit Processing
Overriding Default Transaction Processing
Running Against Data Sources Other Than Oracle
Getting and Setting the Commit Status
Implementing Array DML

Writing Flexible Code

What Is Flexible Code?
Using System Variables for Flexible Coding
Using Built-in Subprograms for Flexible Coding
Referencing Objects by Internal ID
Referencing Items Indirectly

Sharing Objects and Code

Working with Object Libraries
Working with SmartClasses
Reusing PL/SQL
Working with PL/SQL Libraries

Using WebUtil to Interact with the Client

Benefits of WebUtil
Integrating WebUtil into a Form
Interacting with the Client`

Introducing Multiple Form Applications

Multiple Form Applications Overview
Starting Another Forms Module
Defining Multiple Form Functionality

Course Topics (Admin I)

Introduction (Database Architecture)

Describe course objectives
Explore the Oracle 10g database architecture

Installing the Oracle Database Software

Explain core DBA tasks and tools
Plan an Oracle installation
Use optimal flexible architecture
Install software with the Oracle Universal Installer (OUI)

Creating an Oracle Database

Create a database with the Database Configuration Assistant (DBCA)
Create a database design template with the DBCA
Generate database creation scripts with the DBCA

Managing the Oracle Instance

Start and stop the Oracle database and components
Use Enterprise Manager (EM)
Access a database with SQL*Plus and iSQL*Plus
Modify database initialization parameters
Understand the stages of database startup
View the Alert log
Use the Data Dictionary

Managing Database Storage Structures

Describe table data storage (in blocks)
Define the purpose of tablespaces and data files
Understand and utilize Oracle Managed Files (OMF)
Create and manage tablespaces
Obtain tablespace information
Describe the main concepts and functionality of Automatic Storage Management (ASM)

Administering User Security

Create and manage database user accounts
Authenticate users
Assign default storage areas (tablespaces)
Grant and revoke privileges
Create and manage roles
Create and manage profiles
Implement standard password security features
Control resource usage by users

Managing Schema Objects

Define schema objects and data types
Create and modify tables
Define constraints
View the columns and contents of a table
Create indexes, views and sequences
Explain the use of temporary tables
Use the Data Dictionary

Managing Data and Concurrency

Manage data through SQL
Identify and administer PL/SQL Objects
Describe triggers and triggering events

Monitor and resolve locking conflicts

Managing Undo Data

Explain DML and undo data generation
Monitor and administer undo
Describe the difference between undo and redo data
Configure undo retention
Guarantee undo retention
Use the undo advisor

Implementing Oracle Database Security

Describe DBA responsibilities for security
Apply the principal of least privilege
Enable standard database auditing
Specify audit options
Review audit information
Maintain the audit trail

Configuring the Oracle Network Environment

Use Enterprise Manager for configuring the Oracle network environment
Create additional listeners
Create Net Service aliases
Configure connect-time failover
Control the Oracle Net Listener
Test Oracle Net connectivity
Identify when to use shared versus dedicated servers

Proactive Maintenance

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

Performance Management

Use Enterprise Manager pages to monitor performance
Use the SQL Tuning Advisor
Use the SQL Access Advisor
Use Automatic Shared Memory Management
Use the Memory Advisor to size memory buffers
Use performance related dynamic views
Troubleshoot invalid or unusable objects

Backup and Recovery Concepts

Identify the types of failure that may occur in an Oracle Database
Describe ways to tune instance recovery
Identify the importance of checkpoints, redo log files, and archived log files
Configure ARCHIVELOG mode

Course Topics (Admin I)

Performing Database Backups

Create consistent database backups
Back your database up without shutting it down
Create incremental backups
Automate database backups
Monitor the flash recovery area

Performing Database Recovery

Recover from loss of a control file
Recover from loss of a redo log file
Perform complete recovery following the loss of a data file

Performing Flashback

Describe Flashback database
Restore the table content to a specific point in the past with Flashback Table
Recover from a dropped table
View the contents of the database as of any single point in time with Flashback Query
See versions of a row over time with Flashback Versions Query
View the transaction history of a row with Flashback Transaction Query

Moving Data

Describe available ways for moving data
Create and use directory objects
Use SQL*Loader to load data from a non-Oracle database (or user files)
Explain the general architecture of Data Pump
Use Data Pump Export and Import to move data between Oracle databases
Use external tables to move data via platform-independent files

Course Topics(Admin II)

Introduction

Grid Computing
Oracle Enterprise Manager 10g Product Controls
Database Architecture Review

Configuring Recovery Manager

Recovery Manager Features and Components
Using a Flash Recovery Area with RMAN
Configuring RMAN
Control File Autobackups
Retention Policies and Channel Allocation
Using Recovery Manager to connect to a target database in default NOCATALOG mode
Displaying the current RMAN configuration settings
Altering the backup retention policy for a database

Using Recovery Manager

RMAN Command Overview
Parallelization of Backup Sets
Compressed Backups
Image Copy
Whole Database and Incremental Backups
LIST and REPORT commands
Enable ARCHIVELOG mode for the database

Use Recovery Manager

Oracle Secure Backup

Installation and Configuration
Implement the Oracle suggested strategy
RMAN and Oracle Secure Backup
Database and File-system files backup/restore to tape
Using obtool and web interface to configure Oracle Secure Backup devices (CLI/GUI)
Configuring EM for Oracle Secure Backup and test backup to tape (EM)
Using RMAN to backup your database to tape (CLI)
Using the OB Web tool to backup file system files

Recovering from Non-critical Losses

Recovery of Non-Critical Files
Creating New Temporary Tablespace
Recreating Redo Log Files, Index Tablespaces, and Indexes
Read-Only Tablespace Recovery
Authentication Methods for Database Administrators
Loss of Password Authentication File
Creating a new temporary tablespace
Altering the default temporary tablespace for a database

Incomplete Recovery

Recovery Steps
Server and User Managed Recovery commands
Recovering a Control File Autobackup

Creating a New Control File
Incomplete Recovery Overview
Incomplete Recovery Best Practices
Simplified Recovery Through RESETLOGS
Point-in-time recovery using RMAN

Flashback

Flashback Database Architecture
Configuring and Monitoring Flashback Database
Backing Up the Flash Recovery Area
Using V\$FLASH_RECOVERY_AREA_USAGE
Flashback Database Considerations
Using the Flashback Database RMAN interface
Using Flashback Database EM Interface
Managing and monitoring Flashback Database operations

Dealing with Database Corruption

Block Corruption Symptoms: ORA-1578
DBVERIFY Utility and the ANALYZE command
Initialization parameter DB_BLOCK_CHECKING
Segment Metadata Dump and Verification
Using Flashback for Logical Corruption and using DBMS_REPAIR

Block Media Recovery

RMAN BMR Interface
Dumping and Verifying Segment Metadata

Monitoring and Managing Memory

Oracle Memory Structures
Automatic Shared Memory Management
SGA Tuning Principles
Database Control and Automatic Shared Memory Management
Behavior of Auto-Tuned and Manual SGA Parameters
Resizing SGA_TARGET
PGA Management Resources
Using the Memory Advisor

Automatic Performance Management

Identifying Tunable Components
Oracle Wait Events and System Statistics
Troubleshooting and Tuning Views
Direct Attach to SGA for Statistic Collection
Workload Repository
Advisory Framework
ADDM Scenarios and Usage Tips
Using the SQL Tuning and SQL Access Advisor

Monitoring and Managing Storage I

Database Storage Structures
Space Management Overview
Oracle-Managed Files (OMF)
Row Chaining and Migrating
Proactive Tablespace Monitoring

Course Topics(Admin II)

Managing Resumable Space Allocation
SYSAUX Tablespace
Monitoring table and index space usage
Monitoring and Managing Storage II
Automatic Undo Management
Redo Log Files
Table Types
Partitioned Tables
Index-Organized Tables (IOT)
Managing index space with SQL
Configure optimal redo log file size
View "Automatic Tuning of Undo Retention"
Automatic Storage Management
ASM General Architecture and Functionalities
Dynamic Performance View Additions
Managing an ASM Instance
ASM Disk Groups
Using asmcmd Command Line
Migrating Your Database to ASM Storage
Creating an ASM instance in a separate Oracle Home
Migrating a tablespace to use ASM storage
VLDB Support
Creating Bigfile Tablespaces
Packages and data dictionary changes to support VLDB
Creating and maintaining temporary tablespace groups (TTG)
Partitioning and Partitioned Indexes
Skipping unusable indexes
Creating and using hash-partitioned global indexes
DML Error Logging
Interpreting Bigfile ROWIDs
Managing Resources
Database Resource Manager Concepts and Configuration
Creating a New Resource Plan
Active Session Pool Mechanism
Maximum Estimated Execution Time
Creating a Complex Plan
Administering and Monitoring Resource Manager
Resource Plan Directives
Creating Resource Consumer Groups
Automating Tasks with the Scheduler
Scheduler Concepts
Creating a Job Class and a Window
Managing Jobs, Programs, Chains, Events, Schedules, priority
Viewing and Purging Job Logs
Creating a program and a schedule
Creating a job that uses a program and a schedule
Altering the program and schedule for the job and observing the behavior change of the job
Monitoring job runs

Database Security
Virtual Private Database: Overview
Creating a Column-Level Policy
Writing a Policy Function
Policy Types
Column level VPD with column masking
Transparent Data Encryption
Setting the listener password
Implement VPD
Data Movement
External Tables Concepts
Creating a Directory object and External Table
Data Pump
Transport Database
RMAN CONVERT DATABASE Command
Transport Tablespace
Create a Directory Object
Create a Temporary Table
Using Globalization Support
Globalization Support Features
Encoding Schemes
Database Character Sets and National Character Sets
Specifying Language-Dependent Behavior
Locale Variants
Using Linguistic Comparison and Sorting
Data Conversion Between Client and Server
Character Sets
Determining the Default NLS Settings
Workshop
Workshop Methodology, requirements, and setup
Scenario 1: Database performance
Scenario 2: Finding and Tuning Inefficient SQL
Scenario 3: SGA Management - REDO
Scenario 4: Running out of Undo Space
Scenario 5: Missing datafile
Scenario 6: Managing space in a tablespace - REDO
Scenario 7: Missing TEMP data file