Oracle SQL and PL/SQL
(5 day Instructor-Led Course)

Course Overview
In this hands-on course, you will gain the skills necessary to understand Oracle's SQL and PL/SQL languages using SQL*Plus and iSQL*Plus tools. Through extensive hands-on labs, you will learn how to use SQL commands for DML, DDL, query, and transaction control operations. You will learn how to retrieve information from multiple tables and to use the Oracle built-in functions. You will use SQL to insert, update and delete records and maintain existing tables. In addition, you will use PL/SQL to query and manipulate data, to handle exceptions and work with cursors. Course topics are applicable to users of Oracle8i and Oracle9i.

Who Should Attend
- This course is intended for applications designers/developers, end users and database administrators/operators

What You Will Accomplish
- Write basic SQL queries to retrieve desired data from a database
- Use DML and DDL statements
- Use transaction control statements to commit, rollback and create savepoints
- Write advanced queries
- Write scripts to do queries and display SQL*PLUS reports
- Control access to your database objects
- Write a PL/SQL block using all elements of the block structure
- Write PL/SQL statements using lexical units, declared variables and assignment statements
- Use control structures to loop, branch and jump
- Utilize PL/SQL named and user-defined exceptions

What You Will Receive
- Each student will receive a copy of the course manual for post-class reference and review.

Follow-Up Courses
- Web Development with Oracle

Course Syllabus

Write Basic Queries using SQL
- Select data from a database
- Apply conditions to the selected data
- Order the selected data

Use DML and DDLStatements to Manipulate Data
- INSERT and UPDAT data into an existing table
- DELET records from an existing table
- CREAT a table
- ALTER the structure of a table
- DROPP a table
- Use substitution variables

Work with Transaction Control Statements
- Utilize COMMIT
- Use ROLLBACK and SAVEPOINT

Implement Advanced Queries
- Use pseudo columns
- Group data
- Use CONNECT by
- Work with functions
- Incorporate nested queries
- Select data from multiple tables

Create other Database Objects and Controlling Database Access
- Apply sequences, views and indexes
- Use the data dictionary to obtain information about database objects
- Create synonyms
- Develop, grant and revoke database privileges

Apply SQL*Plus to access an Oracle Database
- Start SQL*Plus
- Connect to and disconnecting from a database
- Use HOST and SPOOL command

Use SQL*Plus Commands to Format Database Output
- Format column commands
- Create and using variables
- Use substitution variables
- Develop and using scripts
- Design reports

Understand PL/SQL and using Basic Programming Tools
- Determine PL/SQL capabilities
- Work with PL/SQL block structure
- Examine lexical units
- Make variable declarations

Use Program Control Tools
- Implement conditional control – branching
- Examine iterative control – looping

Handle PL/SQL Errors and Using Cursors
- Manage Oracle and user-defined exceptions
- Define cursor attributes
- Work with cursor records and parameters
- Use a cursor FOR loop

Hands-on Labs Include:
- Applying conditions to the selected data
- CREATing a table
- Using ROLLBACK and SAVEPOINT
- Working with functions
- Applying sequences, views and indexes
- Developing, granting and revoking database privileges
- Connecting to and disconnecting from a database
- Formatting column commands
- Developing and using scripts
- Determining PL/SQL capabilities
- Implementing conditional control – branching
- Managing Oracle and user-defined exceptions
- Working with cursor records and parameters