

Oracle11g SQL and PL/SQL Fundamentals

Length: 5 Days

Audience: Programmers, Analysts, Database Administrators, and those responsible for the development or maintenance of application systems which access an Oracle database.

Prerequisite: Familiarity with data processing and programming concepts.

Overview: Students learn the fundamentals of SQL and PL/SQL and understand the benefits of the programming languages using Oracle database technology. In this course students learn the concepts of relational databases. This course provides the essential SQL skills that allow developers to write queries and manipulate data in tables.

Students use Oracle SQL Developer to develop these program units. SQL*Plus and Jdeveloper are available as optional tools.

Topics discussed include:

- Data Retrieval Operations
 - SELECT Statement
 - Sorting the Result (ORDER BY)
 - Pattern Matching (LIKE)
 - CASE Expressions
 - Built-In Functions
 - Processing Date/Time Information
- Multi-Table Operations
 - Inner Join
 - Outer Join
 - ANSI Join Syntax
 - Subqueries
 - Correlated Subqueries
 - Recursive Queries
- Data Manipulation Operations
 - UPDATE Statement
 - DELETE Statement
 - INSERT Statement
- Security
 - Views
 - GRANT Statement
 - REVOKE Statement
- Miscellaneous SQL
 - Processing Null Values
 - Sequences
 - UNION, INTERSECT, and MINUS

- Overview of PL/SQL
- Variables and Constants
 - Identifiers
 - Datatypes
 - Variables
 - Associative Arrays
 - Expressions
- PL/SQL Executable Statements
 - Control Structures
 - Conditional Statements
 - Loops
- Embedding SQL Within PL/SQL
 - Implicit Cursors
 - Explicit Cursors
 - Parameterized Cursors
 - Transaction Processing
 - Cursor Variables
- Handling Exceptions
 - Predefined Exceptions
 - User-Defined Exceptions
 - RAISE Statement
 - Propagation of Exceptions
- PL/SQL Built-in Functions
- Subprograms
 - Procedures
 - Functions
 - Parameter Modes
 - RETURN Statement
- Introduction to PL/SQL on the Server
 - Stored Procedures
 - Stored Functions