

Course duration

- 4 days

Course Benefits

- Understand how Oracle works
- Learn how tables are structured and how data is stored.
- Learn to use Oracle to output reports.
- Learn to use SQL functions.
- Learn to group data to get aggregate values.
- Learn to write joins and subqueries to get data from multiple tables.
- Learn to use SET operators.
- Learn to do conditional processing with CASE.
- Learn to write INSERT, UPDATE, and DELETE statements.
- Learn to create views.

Available Delivery Methods

Public Class

Public expert-led online training from the convenience of your home, office or anywhere with an internet connection. Guaranteed to run .

Private Class

Private classes are delivered for groups at your offices or a location of your choice.

Self-Paced

Learn at your own pace with 24/7 access to an On-Demand course.

Course Outline

1. Relational Database Basics
 1. Brief History of SQL
2. Relational Databases
 1. Tables
 2. Rows
 3. Columns
 4. Relationships
 5. Data Types

- 6. Primary Keys
 - 7. Foreign Keys
 - 8. Relational Database Management System
- 3. Popular Databases
 - 1. Commercial Databases
 - 2. Popular Open Source Databases
- 4. Schemas and Users
 - 1. Connection Lines
 - 2. Tables
- 2. Creating Tables
 - 1. Data Types
 - 2. Creating Tables
 - 1. NULL Values
 - 2. Primary Keys
 - 3. Foreign Keys
 - 3. Adding Constraints
 - 1. Dropping Constraints
 - 4. UNIQUE Constraints
 - 5. Adding and Dropping Columns
 - 6. Dropping Tables
- 3. Basic Selects
 - 1. Comments
 - 2. Whitespace and Semi-colons
 - 3. Case Sensitivity
 - 4. SELECTing All Columns in All Rows
 - 5. SELECTing Specific Columns
 - 6. Sorting Records
 - 1. Sorting by a Single Column
 - 2. Sorting By Multiple Columns
 - 3. Ascending and Descending Sorts
 - 7. The WHERE Clause and Logical Operator Symbols
 - 1. Checking for Equality
 - 2. Checking for Inequality
 - 3. Checking for Greater or Less Than
 - 4. Checking for NULL
 - 5. WHERE and ORDER BY
 - 8. Checking Multiple Conditions with Boolean Operators
 - 1. AND
 - 2. OR
 - 3. Order of Evaluation
 - 9. The WHERE Clause and Logical Operator Keywords
 - 1. The BETWEEN Operator
 - 2. The IN Operator
 - 3. The LIKE Operator
 - 4. The NOT Operator
- 10. Limiting Rows
 - 1. Fetching a Percent of Records

4. Oracle SQL Functions

1. The DUAL Table and Column Aliases
 1. Column Aliases
2. Calculated Fields '
 1. Concatenation
 2. Mathematical Calculations
3. ROW_NUMBER()
4. Numeric Functions
 1. ABS(), POWER(), and SQRT()
 2. CEIL(), FLOOR(), and ROUND()
 3. ROUND(num1, num2) and TRUNC(num1, num2)
 4. MOD()
5. Character Functions Returning Character Values
 1. TO_CHAR(number, format_model)
 2. CONCAT()
 3. LOWER(), UPPER(), and INITCAP()
 4. LPAD() and RPAD()
 5. TRIM(), LTRIM(), and RTRIM()
 6. REPLACE() and SUBSTR()
6. Character Functions Returning Number Values
 1. INSTR() and LENGTH()
7. Datetime Functions
 1. CURRENT_DATE, CURRENT_TIMESTAMP, SYSDATE, and
 2. SYS_TIMESTAMP
 3. TO_DATE()
 4. TO_CHAR(datetime, format_model)
 5. ROUND() and TRUNC()
8. NULL-Related Functions
 1. COALESCE()
 2. NVL()
 3. NVL2()
9. Other Functions
 1. DECODE()
 2. GREATEST() and LEAST()

5. Aggregate Functions

1. Introduction to Aggregate Functions
2. Grouping Data
 1. GROUP BY
 2. HAVING
 3. Order of Clauses
 4. Grouping Rules
3. Selecting Distinct Records
4. ROLLUP() and CUBE()
 1. ROLLUP()
 2. CUBE()

6. Joins

1. Inner Joins

- 2. Outer Joins
 - 1. Left Joins
 - 2. Right Joins
 - 3. Full Outer Joins
- 7. Subqueries
 - 1. Subquery Basics
 - 2. Subqueries in the SELECT Clause
 - 1. Combining SELECT and WHERE Subqueries
- 8. Set Operators
 - 1. Set Operators
 - 2. Rules for Set Operations
 - 3. UNION
 - 4. UNION ALL
 - 5. INTERSECT
 - 6. MINUS
- 9. Conditional Processing with CASE
 - 1. Using CASE
 - 2. Selected Case
 - 3. Searched Case
- 10. Data Manipulation Language
 - 1. INSERT
 - 2. UPDATE
 - 3. DELETE
 - 4. Updating and Deleting Multiple Records
- 11. Creating Views
 - 1. Creating Views
 - 1. Dropping Views
 - 2. Benefits of Views
 - 3. Inline Views

Class Materials

Each student will receive a comprehensive set of materials, including course notes and all the class examples.

Prerequisite Courses

Courses that can help you meet these prerequisites:

- [Introduction to SQL Training](#)