

Oracle Database 12c: SQL Fundamentals I

Topics:

Module 1: Relational Databases & Data Models

- About Data Models
- About the Relational Model
- The Electronics Data Model
- About the Relational DBMS

Module 2: Selection & Setup of the Database Interface

- Considering Available Tools
- Selecting the Appropriate Tool
- Oracle NET Database Connections
- Oracle PAAS Database Connections
- Setup SQL Developer
- Setup SQL*PLUS
- Setup JDeveloper

Module 3: Using the Database Interface

- About BIND & SUBSTITUTION Variables
- Using SQL Developer
- Using SQL*PLUS

Module 4: Introduction to The SQL Language

- About the SQL Language
- Characteristics of SQL
- Introducing SQL Using SELECT
- SQL Rules

Module 5: The SELECT Statement

- The SELECT Statement
- DISTINCT / UNIQUE Keyword
- Using ALIAS Names

Module 6: Restricting Results With the WHERE Clause

- About Logical Operators
- EQUALITY Operator
- Boolean Operators
- REGEXP_LIKE()
- IN Operator

Module 7: Sorting Data With the ORDER BY Clause

- About the ORDER BY Clause
- Multiple Column Sorts
- Specify the Sort Sequence
- About NULL Values Within Sorts
- Using COLUMN Aliases

Module 8: Pseudo Columns, Functions, & TOP--N Queries

- ROWID Pseudo Column
- ORA_ROWSCN Pseudo Column
- ROWNUM Pseudo Column
- About the BUILT--IN Functions
- SYSDATE
- USER & UID
- SESSIONTIMEZONE Function
- Using the DUAL Table
- ROW LIMITING & TOP--N Queries
- FETCH FIRST x ROWS ONLY Clause
- OFFSET x ROWS Clause
- FETCH ... PERCENT Clause
- The WITH TIES Option

Module 9: JOINING TABLES

- About JOINS
- INNER JOIN
- REFLEXIVE JOIN
- NON--KEY JOIN
- OUTER JOIN

Module 10: USING THE SET OPERATORS

- About The SET Operators
- SQL SET Operator Examples
- UNION Example
- INTERSECT Example
- MINUS Example
- UNION ALL

Module 11: Summary Functions Using SUB--QUERIES

- Finding Data With SUB--QUERIES
- Standard SUB--QUERIES
- Correlated SUB--QUERIES
- The EXISTS Operator

Module 12: Aggregating Data Within Groups

- About SUMMARY Groups
- Find Groups Within the Tables
- Select Data From the Base Tables
- Select Groups from the Results

Module 13: Use DDL to Create & Manage Tables

- CREATE TABLE Statement
- COLUMN Data Types
- NOT NULL
- DEFAULT
- DESCRIBE

- ALTER TABLE Statement
- DROP TABLE Statement
- Table DDL Using SQL Developer
- ALTER USER Statement
- ALTER SESSION Statement
- NLS_LANGUAGE
- NLS_DATE

Module 14: Use DML to Manipulate Data

- The INSERT Statement
- The DELETE Statement
- The UPDATE Statement
- About TRANSACTIONS
- TRANSACTION ROLLBACK
- TRANSACTION COMMIT
- TRANSACTION SAVEPOINT
- The SET TRANSACTION Statement
- SET TRANSACTION READ ONLY Statement Rules