

Oracle - SQL

➤ Introduction to SQL

- Introduction to SQL
- Oracle Editions
- SQL Working Tools
- SQL Developer
- Quest Toad
- Logging in SQL*Plus
- Connecting to Database on windows and Linux



➤ Accessing Data using Queries

- Select Statements
- Arithmetic expressions and NULL values in the SELECT statement
- Column aliases
- Use of concatenation operator, literal character strings, alternative quote operator, and the DISTINCT keyword
- DESCRIBE command



➤ Restricting and Sorting Data

- Limiting the Rows
- Rules of precedence for operators in an expression
- Sorting rows using ORDER BY clause
- SQL row limiting clause in a query
- Substitution Variables
- Using the DEFINE and VERIFY command

➤ Using Single-Row Functions to Customize Output

- Describe the differences between single row and multiple row functions
- Manipulate strings with character function in the SELECT and WHERE clauses
- Nesting Functions
- Manipulate numbers with the ROUND, TRUNC and MOD functions
- Perform arithmetic with date data
- Manipulate dates with the date functions

➤ SQL languages- DDL, DML, TCL, DCL

- Database Objects
- CREATE TABLE statement
- Data types
- Overview of constraint
- Creating a table using sub query

- Use the ALTER TABLE statement to add, modify, and drop a column
- DROP TABLE statement

- **Working on Constraints**
 - Managing constraints
 - TYPES of Constraints
 - ON DELETE Cascade option

- **Using Conversion Functions and Conditional Expressions**
 - Describe implicit and explicit data type conversion
 - Use the TO_CHAR, TO_NUMBER, and TO_DATE conversion functions
 - Apply the NVL, NULLIF, and COALESCE functions to data
 - Conditional Expressions

- **Reporting Aggregated Data Using the Group Functions**
 - Group Functions
 - Grouping Rows (GROUP BY and HAVING clause)
 - Nesting Group Functions

- **Displaying Data from Multiple Tables Using Joins**
 - Introduction to JOINS
 - Types of Joins
 - Natural join
 - Self-join
 - Non equi-joins
 - OUTER join
 - Cartesian product

- **Using Sub queries to Solve Queries**
 - Introduction to Sub queries
 - Single Row Sub queries
 - Multiple Row Sub queries
 - Null values in a sub query

- **Using the SET Operators**
 - Set Operators
 - INTERSECT operator
 - MINUS operator
 - Matching the SELECT statements
 - Using ORDER BY clause in set operations

➤ **Dictionary Views**

- Introduction to Data Dictionary
- Describe the Data Dictionary Structure
- Using the Data Dictionary views
- Querying the Data Dictionary Views

➤ **Views, Sequences and Synonyms**

- Why Views
- View TYPES
- Sequences and its use
- Using Synonyms

➤ **Indexes**

- Row id
- Types of Indexes
- Using Hints
- Joining Methods
- Execution plan

➤ **Temp and External tables**

- SQL*Loader
- Loading data from excel / text files to tables
- Using Temporary tables
- External tables

➤ **User access control**

- Grant/Revoke privileges to other users
- With GRANT Option
- Objects Vs System Privileges