SYLLABUS

ORACLE SQL
THE COMPLETE BOOTCAMP 2021

INTRODUCTION

- Data and database overview
- DBMS and SQL overview

USING SELECT STATEMENT TO RETRIEVE DATA

- Writing basic SELECT statement
- Arithmetic operations and NULL values
- Using column alias
- Using concatenation operator, literal character string and DISTINCT keyword
- Using DESCRIBE command

FILTERING DATA

- Filtering data
- Using comparison operators
- Using logical operators

SORTING DATA

- Sorting data
- Row limiting clause
- Substitution variables
- Define and verify commands

SINGLE ROW FUNCTIONS

- SQL functions
- Character functions – Case conversion functions
- Character functions – Manipulation functions
- Numeric functions
- Date functions

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CONVERSION AND GENERAL FUNCTIONS

- Data type conversion
- Conversion functions – TO_CHARE
- Conversion functions - TO_NUMBER and TO_DATE
- General functions - NVL, NVL2, NULLIF and COALESCE
- General functions - CASE and DECODE

GROUP FUNCTIONS

- Using group Functions
- Distinct and NULL values in group functions
- Using the GROUP BY clause
- Using the HAVING clause

JOINS

- Join – Overview
- Inner Join – Natural Join
- Inner Join – Using Clause
- Inner Join – ON Clause
- Inner Join – Self Join
- Non equijoin
- Outer Join
- Cross (Cartesian) Join

USING SUBQUERIES PART I

- Using subqueries
- Single row subquery
- Multi row subquery
- Multi column subquery

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SET OPERATORS

- Set operators overview
- Set operators – UNION/UNION ALL
- Set operators – INTERSECT/MINUS

DML - Data Manipulation Language
TCL – Transaction Control Language

- DML – INSERT statement
- DML – UPDATE statement
- DML – DELETE statement
- TCL – Transaction Control Language

DDL - DATA DEFINITION LANGUAGE

- DDL – CREATE TABLE Statement
- Columns data types
- Table constraints – NOT NULL and CHECK
- Table constraints – UNIQUE and PRIMARY
- Table constraints – FOREIGN KEY
- CREATE TABLE with subquery
- DDL – ALTER TABLE statement
- DDL – DROP TABLE statement

DATA DICTIONARY VIEWS

- Data dictionary overview
- Data dictionary views– Objects information
- Data dictionary views– Tables information
- Data dictionary views– Columns information
- Data dictionary views– Constraints information
- Data dictionary views– Comments

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VIEWS

- Views overview
- Create view / Query view
- Modify view
- DML operations on a view
- Retrieve view information / Drop view

SEQUENCES

- Create sequences
- Using sequences / Modify sequences
- View sequence information / Drop sequence

SYNONYMS

- Create synonym
- View synonym information / Drop synonym

INDEXES

- Create index
- View Index information / Drop index

MANAGING SCHEMA OBJECTS

- Managing constraints
- Temporary table
- External table

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USING SUBQUERIES PART II

- Multicolumn subquery
- Correlated subquery
- EXISTS and NOT EXISTS operators
- WITH clause

MANIPULATING DATA USING SUBQUERIES

- Correlated update
- Correlated delete
- Inline view

CONTROLLING USER ACCESS

- Privileges overview
- System privileges
- Object privileges
- Roles
- Revoke privileges

MANIPULATING DATA – DML PART II

- MERGE statement
- Multitable insert overview
- Multitable insert - nconditional INSERT ALL
- Multitable insert - Conditional INSERT ALL
- Multitable insert - Conditional INSERT FIRST
- Multitable insert - Pivoting INSERT
- FLASHBACK table statement/Drop
- FLASHBACK Query

MANAGING DATA IN DIFFERENT TIME ZONES

- Time zone
- INTERVAL data types
- Other time functions