

Oracle Database 10/11g/12c SQL Exam Syllabus:

Oracle and Structured Query Language (SQL)

- Identify the connection between an ERD and a Relational Database
- Explain the relationship between a database and SQL
- Describe the purpose of DDL
- Describe the purpose of DML
- Build a SELECT statement to retrieve data from an Oracle Database table

Restricting and Sorting Data

- Use the ORDER BY clause to sort SQL query results
- Limit the rows that are retrieved by a query
- Use ampersand substitution to restrict and sort output at runtime
- Use SQL row limiting clause

Using Single-Row Functions to Customize Output

- Use various types of functions available in SQL
- Use character, number, and date and analytical (PERCENTILE_CONT, STDDEV, LAG, LEAD) functions in SELECT statements

Using Conversion Functions and Conditional Expressions

- Describe various types of conversion functions that are available in SQL
- Use the TO_CHAR, TO_NUMBER, and TO_DATE conversion functions
- Apply general functions and conditional expressions in a SELECT statement

Reporting Aggregated Data Using the Group Functions

- Describe the use of group functions
- Group data by using the GROUP BY clause
- Include or exclude grouped rows by using the HAVING clause

Displaying Data from Multiple Tables

- Describe the different types of joins and their features
- Use SELECT statements to access data from more than one table using equijoins and nonequijoins
- Join a table to itself by using a self-join
- View data that generally does not meet a join condition by using outer joins

Using Subqueries to Solve Queries

- Define subqueries
- Describe the types of problems subqueries can solve
- Describe the types of subqueries
- Query data using correlated subqueries
- Update and delete rows using correlated subqueries
- Use the EXISTS and NOT EXISTS operators
- Use the WITH clause
- Use single-row and multiple-row subqueries

Using the Set Operators

- Describe set operators

- Use a set operator to combine multiple queries into a single query
- Control the order of rows returned

Manipulating Data

- Truncate data
- Insert rows into a table
- Update rows in a table
- Delete rows from a table
- Control transactions

Using DDL Statements to Create and Manage Tables

- Describe data types that are available for columns
- Create a simple table
- Create constraints for tables
- Drop columns and set column UNUSED
- Create and use external tables

Managing Objects with Data Dictionary Views

- Query various data dictionary views

Controlling User Access

- Differentiate system privileges from object privileges
- Grant privileges on tables and on a user
- Distinguish between privileges and roles

Managing Schema Objects

- Describe how schema objects work
- Create simple and complex views with visible/invisible columns
- Create, maintain and use sequences
- Create and maintain indexes including invisible indexes and multiple indexes on the same columns
- Perform flashback operations

Manipulating Large Data Sets

- Describe the features of multitable INSERTs
- Merge rows in a table