



### Tədris haqqında məlumat:

Verilənlər bazasında sorğuların yazılması, müxtəlif hesabatların formalaşdırılması ilə bağlı biliklərə yiyələnmək istəyən, bu sahədə özünü inkişaf etdirmək istəyən şəxslər üçün nəzərdə tutulmuşdur. Gələcək işini məlumatların təhlili və vizuallaşdırılması sahəsində davam etdirmək planı olan şəxslər üçün tədris prosesində ilkin məlumatlarla tanışlıq nəzərdə tutulmuşdur. Dərslər interaktiv şəkildə keçirilir, dərslər üçün tapşırıqlar nümunə bazalar üzərində icra edilir.

### Oracle and Structured Query Language (SQL-1Z0-071)

- 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

### **Analyzing and Visualizing Data with BI tools**

- Understanding key concepts in business intelligence, data analysis, and data visualization
- Visualizing your data