**Szkolenie: Oracle**

**Oracle Database: Introduction to SQL**

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<th>FORMA SZKOLENIA</th>
<th>MATERIAŁY SZKOLENIOWE</th>
<th>CENA</th>
<th>CZAS TRWANIA</th>
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</thead>
<tbody>
<tr>
<td>Stacjonarne</td>
<td>Cyfrowe</td>
<td>7450 PLN NETTO*</td>
<td>5 dni</td>
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<td>Stacjonarne</td>
<td>Tablet CTAB</td>
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<td>Metoda dlearning</td>
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* (+VAT zgodnie z obowiązującą stawką w dniu wystawienia faktury)

**LOKALIZACJE**

Kraków - ul. Tatarska 5, II piętro, godz. 9:00 - 16:00
Warszawa - ul. Bielska 17, godz. 9:00 - 16:00

**Cel szkolenia:**

This **Oracle Database: Introduction to SQL** training helps you write subqueries, combine multiple queries into a single query using SET operators and report aggregated data using group functions. Learn this and more through hands-on exercises.

**Learn To:**

- Understand the basic concepts of relational databases ensure refined code by developers.
- Create reports of sorted and restricted data.
- Run data manipulation statements (DML).
- Control database access to specific objects.
- Manage schema objects.
- Manage objects with data dictionary views.
- Retrieve row and column data from tables.
- Control privileges at the object and system level.
- Create indexes and constraints; alter existing schema objects.
- Create and query external tables.

**Plan szkolenia:**

- Introduction to Oracle Database
  - List the features of Oracle Database 11g
○ Discuss the basic design, theoretical, and physical aspects of a relational database
○ Categorize the different types of SQL statements
○ Describe the data set used by the course
○ Log on to the database using SQL Developer environment
○ Save queries to files and use script files in SQL Developer

○ Retrieve Data using the SQL SELECT Statement
  ○ List the capabilities of SQL SELECT statements
  ○ Generate a report of data from the output of a basic SELECT statement
  ○ Select All Columns
  ○ Select Specific Columns
  ○ Use Column Heading Defaults
  ○ Use Arithmetic Operators
  ○ Understand Operator Precedence
  ○ Learn the DESCRIBE command to display the table structure

○ Learn to Restrict and Sort Data
  ○ Write queries that contain a WHERE clause to limit the output retrieved
  ○ List the comparison operators and logical operators that are used in a WHERE clause
  ○ Describe the rules of precedence for comparison and logical operators
  ○ Use character string literals in the WHERE clause
  ○ Write queries that contain an ORDER BY clause to sort the output of a SELECT statement
  ○ Sort output in descending and ascending order

○ Usage of 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
  ○ Manipulate numbers with the ROUND, TRUNC, and MOD functions
  ○ Perform arithmetic with date data
  ○ Manipulate dates with the DATE functions

○ Invoke Conversion Functions and Conditional Expressions
  ○ Describe implicit and explicit data type conversion
  ○ Use the TO_CHAR, TO_NUMBER, and TO_DATE conversion functions
  ○ Nest multiple functions
  ○ Apply the NVL, NULLIF, and COALESCE functions to data
  ○ Use conditional IF THEN ELSE logic in a SELECT statement

○ Aggregate Data Using the Group Functions
  ○ Use the aggregation functions to produce meaningful reports
  ○ Divide the retrieved data in groups by using the GROUP BY clause
- Exclude groups of data by using the HAVING clause
- Display Data From Multiple Tables Using Joins
  - Write SELECT statements to access data from more than one table
  - View data that generally does not meet a join condition by using outer joins
  - Join a table to itself by using a self join
- Use Sub-queries to Solve Queries
  - Describe the types of problem that sub-queries can solve
  - Define sub-queries
  - List the types of sub-queries
  - Write single-row and multiple-row sub-queries
- The SET Operators
  - Describe the SET operators
  - Use a SET operator to combine multiple queries into a single query
  - Control the order of rows returned
- Data Manipulation Statements
  - Describe each DML statement
  - Insert rows into a table
  - Change rows in a table by the UPDATE statement
  - Delete rows from a table with the DELETE statement
  - Save and discard changes with the COMMIT and ROLLBACK statements
  - Explain read consistency
- Use of DDL Statements to Create and Manage Tables
  - Categorize the main database objects
  - Review the table structure
  - List the data types available for columns
  - Create a simple table
  - Decipher how constraints can be created at table creation
  - Describe how schema objects work
- Other Schema Objects
  - Create a simple and complex view
  - Retrieve data from views
  - Create, maintain, and use sequences
  - Create and maintain indexes
  - Create private and public synonyms
- Control User Access
  - Differentiate system privileges from object privileges
Create Users
Grant System Privileges
Create and Grant Privileges to a Role
Change Your Password
Grant Object Privileges
How to pass on privileges?
Revoke Object Privileges

Management of Schema Objects
Add, Modify, and Drop a Column
Add, Drop, and Defer a Constraint
How to enable and Disable a Constraint?
Create and Remove Indexes
Create a Function-Based Index
Perform Flashback Operations
Create an External Table by Using ORACLE_LOADER and by Using ORACLE_DATAPUMP
Query External Tables

Manage Objects with Data Dictionary Views
Explain the data dictionary
Use the Dictionary Views
USER_OBJECTS and ALL_OBJECTS Views
Table and Column Information
Query the dictionary views for constraint information
Query the dictionary views for view, sequence, index and synonym information
Add a comment to a table
Query the dictionary views for comment information

Manipulate Large Data Sets
Use Subqueries to Manipulate Data
Retrieve Data Using a Subquery as Source
Insert Using a Subquery as a Target
Usage of the WITH CHECK OPTION Keyword on DML Statements
List the types of Multitable INSERT Statements
Use Multitable INSERT Statements
Merge rows in a table
Track Changes in Data over a period of time

Data Management in different Time Zones
Time Zones
CURRENT_DATE, CURRENT_TIMESTAMP, and LOCALTIMEESTAMP

Compare Date and Time in a Session’s Time Zone

DBTIMEZONE and SESSIONTIMEZONE

Difference between DATE and TIMESTAMP

INTERVAL Data Types

Use EXTRACT, TZ_OFFSET and FROM_TZ

Invoke TO_TIMESTAMP, TO_YMINTERVAL and TO_DSINTERVAL

Retrieve Data Using Sub-queries

Multiple-Column Subqueries

Pairwise and Nonpairwise Comparison

Scalar Subquery Expressions

Solve problems with Correlated Subqueries

Update and Delete Rows Using Correlated Subqueries

The EXISTS and NOT EXISTS operators

Invoke the WITH clause

The Recursive WITH clause

Regular Expression Support

Use the Regular Expressions Functions and Conditions in SQL

Use Meta Characters with Regular Expressions

Perform a Basic Search using the REGEXP_LIKE function

Find patterns using the REGEXP_INSTR function

Extract Substrings using the REGEXP_SUBSTR function

Replace Patterns Using the REGEXP_REPLACE function

Usage of Sub-Expressions with Regular Expression Support

Implement the REGEXP_COUNT function

Wymagania:

Recommended Related Training Courses:

Oracle Database 11g: SQL Tuning Workshop Release 2
Oracle Database 11g: Performance Tuning DBA Release 2
Oracle SQL Tuning for Developers Workshop
Oracle Database 11g: Data Mining Techniques
Poziom trudności

Certyfikaty:

Uczestnicy szkoleń otrzymają zaświadczenia o ukończeniu kursu sygnowane przez firmę Oracle.

Prowadzący:

Autoryzowany wykładowca Oracle.