

## Szkolenie: Capstone Courseware 301 Introduction to SQL



### Cel szkolenia:

This course provides an in-depth introduction to the Structured Query Language, or SQL. Students learn key concepts of relational databases and query design, and have extensive opportunities to write database queries. The course also introduces table design and database update statements.

### Learning Objectives

- Understand the structure of relational databases.
- Write simple select-from-where style queries.
- Write standard and correlated subqueries.
- Write queries that use all styles of table join.
- Build database tables, and write insert, update, and delete statements to modify data.

### Plan szkolenia:

- Relational Databases and SQL
  - Relational Databases
  - SQL
  - Schema
  - Integrity
  - DDL
  - DML
- Tools
  - Tools and Environment
  - Creating the Course Schema
- The select Statement
  - SQL Syntax
  - Basic Query Structure
  - Null Values
  - Result Sets
- The select Clause

- The Expression List
- Character Expressions
- Column Headers and Aliases
- Mathematical Expressions
- Functions
- Using distinct
- The where Clause
  - Filtering Predicates
  - SQL Operators and Precedence
  - Equality and Inequality Operators
  - Logical Operators
  - between
  - like
  - in
  - is null
  - Functions
- The order by Clause
  - Sorting by Column Names
  - Sorting by Expressions
  - Sorting by Ordinal
- Aggregate Functions
  - Aggregates
  - count
  - avg
  - Querying Groups
  - Grouping and the where Clause
  - Choosing and Filtering Groups
- Standard Subqueries
  - What is a Subquery?
  - Standard Subqueries
  - Using Aggregate Functions
  - Subquery Operators
- SQL-Standard Joins
  - Why Joins?
  - Foreign Keys and Joins
  - Qualifying Columns

- Table Aliases
- Inner and Outer Joins
- Correlated Subqueries
  - Correlated Subqueries
  - Subqueries and Scope
  - Performance
- DDL for Tables
  - Tables
  - Object Names
  - Data Types
  - Creating a Table
  - Dropping a Table
- Maintaining the Data in Tables
  - Identifying Column Position and Data Type
  - The insert Statement
  - The update Statement
  - The delete Statement
  - Transaction Control
  - Auto-Commit

## Wymagania:

- No formal prerequisites.

## Poziom trudności



## Certyfikaty:

The participants will obtain certificates signed by Capstone Courseware.

## Prowadzący:

Authorized Capstone Courseware Trainer.