

# SQL-Jazyk 1

## Writing Queries Using SQL

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### Description:

The three-day course aims to acquaint students with the basics of SQL. Its content is a description of language syntax, definition of data structures, queries, and data manipulation.

### Students will be able to:

- Create and use queries in SQL
- Manipulate with data
- Define and work with database objects

### Course requirements:

- Refresh, master, and learn new SQL knowledge

### This course is intended for:

- Database administrators, developers, IT architects
- Users who will use SQL to query, report and analyze

### Literature:

All participants will get internal materials.

### Hardware:

Classrooms are equipped with high-performance computers with Internet access and the possibility of wireless connection.

### Syllabus:

#### Module 1: Introduction to SQL

- SQL language
- DDL, DML, DCL statements
- Expressions, operators, variables

#### Module 2: SELECT

- Syntax
- DISTINCT
- Aliases

## **Module 3: Querying multiple tables**

- Joining tables
- JOIN

## **Module 4: Sorting and filtering data**

- ORDER BY
- WHERE

## **Module 5: Data types and built-in functions**

- Data types
- Built-in functions
- Data conversions

## **Module 6: Grouping and aggregating data**

- Aggregating functions
- GROUP BY

## **Module 7: Subqueries**

- Scalar subqueries
- Multi-valued subqueries
- Correlated subqueries

## **Module 8: Database objects**

- Views
- Functions
- Procedures

## **Module 9: Set operators**

- UNION
- INTERSECT
- EXCEPT
- APPLY

## **Module 10: Pivoting**

- PIVOT
- UNPIVOT

## **Module 11: DML, DDL**

- INSERT
- UPDATE
- DELETE

## **Module 12: Transactions**

- Using transactions
- START/BEGIN
- COMMIT
- ROLLBACK

## Module 13: Query performance

- Queries
- Indexes
- Statistics
- Performance

### Contact us

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