**Digital
Learning
Hub_**

Certificate of participation

Issued to	:	Tanja DOUCIN
Title of the course	:	

**Introduction to SQL, the query language for relational
databases**

Date of the course	:	from 23/11/2024 to 14/12/2024
Hours of training	:	16 (100%)
Attendance rate	:	75%

Esch-sur-Alzette, 30 December 2024

Dr. Serge Linckels
Managing Director

Introduction to SQL, the query language for relational databases

Content

1. Introduction to SQL: Overview of SQL as a query language, its importance in working with relational databases, and its applications in various industries. 2. Database Concepts: Understanding fundamental concepts related to databases, including tables, rows, columns, primary keys, foreign keys, and relationships. 3. Data Manipulation: Learning how to retrieve, insert, update, and delete data using SQL statements, including SELECT, INSERT, UPDATE, and DELETE. 4. Data Filtering and Sorting: Exploring techniques to filter and sort data based on specific criteria using WHERE, ORDER BY, and other relevant clauses. 5. Data Aggregation: Understanding how to perform aggregations on data using functions like COUNT, SUM, AVG, MIN, and MAX, and utilizing GROUP BY and HAVING clauses. 6. Joins and Relationships: Explaining various types of joins (INNER JOIN, LEFT JOIN, RIGHT JOIN, etc.) to combine data from multiple tables based on common columns.

Learning Outcomes

On completion of this course, participants will be able to: • Create queries in SQL for relational database systems • Write single table queries • Filter records to obtain only the relevant information • Use joins to read data from multiple tables simultaneously • Perform CRUD operations to add, fetch, modify and delete records in a table.

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