OSDA-22 - POSTGRESQL DEVELOPER

Categoria: **Data & Artificial Intelligence**

INFORMAZIONI SUL CORSO

Durata:	Categoria:	Qualifica Istruttore:	Dedicato a:	Produttore:
3 Giorni	Data & Artificial Intelligence	Docente Senior (min. 5 anni)	Sviluppatore	PCSNET

OBIETTIVI

Il corso presenta il linguaggio SQL, linguaggio dichiarativo che permette di modificare i dati e creare oggetti quali tabelle e indici.
Saranno presentati i costrutti per la definizione di procedure interne a PostgreSQL ed affrontate problematiche di tuning.
Nel corso verranno svolte diverse esercitazioni a supporto della teoria.

PREREQUISITI

Nessuno

CONTENUTI

Client Interfaces

- -Command Line Interface – psql
- -Graphical Interface - pgadmin4

Understanding PostgreSQL Data Types

- -Numeric data types
- -Character types
- -Binary data types
- -Date & time types
- -Boolean values
- -Array types
- -Other data types

Retrieving information from tables using SELECT

Performing table joins

- -Cross joins
- -Inner joins
- -Outer joins
- -Natural joins

Restricting selections using the WHERE clause

Using ORDER BY to sort query results

Limiting rows returned using LIMIT

Computing summary values
- -Using the GROUP BY clause
- -Using the HAVING clause

Using UNION, INTERSECT and EXCEPT to join SELECT Results

Pattern matching using LIKE

Conditional expressions: The CASE statement, the COALESCE and NULLIF function

Subquery expressions
- -The EXISTS expression
- -The IN (and NOT IN) expression

Working with array values

Performing type casting and conversion

Understanding & managing sequence numbers

Creating tables (DDL)
- -Using CREATE TABLE
- -NOT NULL constraints
- -PRIMARY KEY constraints
- -FOREIGN KEY constraints

Modifying tables (ALTER TABLE)

Data manipulation language (DML)
- -Inserting data
- -Using COPY to perform data loads
- -Using DELETE to remove rows
- -Updating data using UPDATE

Transactions and Concurrency
- -Transactions and Isolations
- -Multi-Version Concurrency Control

Server Programming
- -Extending SQL
- -Triggers
- -The Rule System
- -Procedural Languages
- -PL/pgSQL - SQL Procedural Language

- -Error Handling
- -Cursors

Foreign Data Wrappers

- -Extension in PostgreSQL
- -Adding FDW in a Database
- -postgres_fdw
- -file_fdw
- -Other FDWs

SQL Tuning

- -Logging in PostgreSQL
- -Query Plans
- -Optimizing Queries
- -Statistics
- -Planner Parameters
- -Parallel Query Scans
- -SQL Best Practices
- -Indexes
- -Table Partitioning

INFO

Materiale didattico: Materiale didattico e relativo prezzo da concordare
Costo materiale didattico: NON incluso nel prezzo del corso
Natura del corso: Operativo (previsti lab su PC)