

Data Analysis with PostgreSQL

TDXBI-111











ThriveDX Data Analysis with PostgreSQL

Time Commitment

10 days (total of 75 hours / 7.5 hours per day)

Skill Level

Advanced Level

Course Category

BI & Big Data

This course is designed to provide professionals from diverse backgrounds with practical skills in PostgreSQL, a leading open-source relational database management system.

You will learn how to efficiently store, retrieve, manipulate, and analyze data, giving you the tools to support data-driven decision-making across various industries.

By the end of the course, you will be prepared to address real-world data challenges and make informed decisions in data-driven environments.

Target audience

This SQL course is designed for data analysts, business analysts, IT professionals, and developers seeking to gain essential skills in querying, manipulating, and managing data.

Prerequisites

No prior knowledge of SQL is required.







Objectives

- Understand the basics of relational databases and the PostgreSQL environment.
- Construct basic and advanced SQL queries to retrieve and filter data.
- Master aggregations to summarize data effectively.
- Utilize subqueries and CTEs to write sophisticated and well-structured queries.
- Modify and manage data through DML and DDL commands.
- Utilize advanced PostgreSQL features to enhance data analysis.

Program Structure

Module 01: Introduction to PostgreSQL:

- Installation (PostgreSQL, DBeaver)
- Relational database
- Basic SQL queries

Module 02: Querying data

- Filtering data
- Scalar functions
- Aggregations
- Relationships (Joins)
- Subqueries and Common Table Expressions (CTE)

Module 03: Data Manipulation and Database Management

- DML and DDL commands
- Views

Module 04: Advanced PostgreSQL Features

- Special data types (JSONB, arrays)
- Set operations
- Window functions
- Introduction to optimization and transactions







