KOENIG SOLUTIONS · COURSE OUTLINE

DB2 SQL Workshop

Learn to design, query and manage DB2 databases, from architecture and SQL queries to stored procedures and performance tuning.

8
MODULES

34
TOPICS

COURSE OVERVIEW

This course introduces DB2 and its architecture, including server components and client tools. It covers designing and creating databases, managing data through SQL including inserts, updates, transactions, and backup and recovery, and writing SQL queries with joins, grouping, and subqueries. It then addresses data modelling with ER diagrams and normalisation, building stored procedures and functions, and optimising performance through indexing and query tuning.

WHO THIS COURSE IS FOR

- **Database Administrators**
- **Database Developers**
- **SQL Developers**
- **Data Analysts**
- **Application Developers**

LEARNING OBJECTIVES

- Describe DB2 architecture and its server and client components
- Design and create databases, tables and data constraints
- Apply DB2 SQL to insert, update and delete data
- Manage transactions and implement backup and recovery
- Construct SQL queries using joins, grouping and subqueries
- Develop data models using ER diagrams and normalisation
- Create and debug stored procedures and functions
- Identify and resolve performance issues using indexes and tuning

COURSE SYLLABUS

8 Modules, 34 Topics

01

Introduction to DB2

TOPICS

Overview of DB2 · Benefits of using DB2 · Comparison with other relational databases

02

DB2 Architecture

TOPICS

Introduction to DB2 architecture · Components of DB2 · Understanding the role of the DB2 server · Overview of DB2 client tools

03

Database Design and Creation

TOPICS

Overview of database design · Creating a database in DB2 · Designing tables and columns · Implementing data constraints

04

Data Management

TOPICS

Introduction to data management · Overview of DB2 SQL · Inserting, updating, and deleting data · Managing transactions · Implementing data backup and recovery

05

SQL Queries

TOPICS

Introduction to SQL queries · Overview of DB2 SQL · Select statements · Joining tables · Grouping and aggregating data · Implementing subqueries

06

Data Modelling

TOPICS

Introduction to data modelling · Overview of ER modelling · Implementing relationships · Designing normalized databases

07

Stored Procedures and Functions

TOPICS

- Introduction to stored procedures and functions
- Overview of DB2 stored procedures
- Creating stored procedures and functions
- Debugging and testing stored procedures

08

Performance Optimization

TOPICS

Introduction to performance optimization · Overview of DB2 performance tuning · Identifying and resolving performance issues · Implementing indexes and query optimization

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

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