

Soft-Train



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Technology Works*

MySQL Fundamentals (2 Days) ST80013

COURSE GOAL: To learn how to install and administer MySQL.

PREREQUISITES: Knowledge Linux Administration.

LEARNING OBJECTIVES:

- Retrieving Data
- Sorting Retrieved data
- Installing MySQL
- Advanced Data Filtering
- Searching Using Regular Expressions Working with Stored Procedures
- Working with Subqueries

Key Topics:

I. Understanding SQL

- A. Database Basics
- B. What Is SQL?

II. Introducing MySQL

- A. What Is MySQL?
- B. MySQL Tools

III. Working with MySQL

- A. Making the Connection
- B. Selecting a Database
- C. Learning About Databases and Tables

IV. Retrieving Data

- A. The SELECT Statement
- B. Retrieving Individual Columns
- C. Retrieving Multiple Columns
- D. Retrieving All Columns
- E. Retrieving Distinct Rows
- F. Limiting Results
- G. Using Fully Qualified Table Names

V. Sorting Retrieved Data

- A. Sorting Data
- B. Sorting by Multiple Columns
- C. Specifying Sort Direction

VI. Filtering Data

- A. Using the WHERE Clause
- B. The WHERE Clause Operators

- VII. Advanced Data Filtering**
 - A. Combining WHERE Clauses
 - B. Using the IN Operator
 - C. Using the NOT Operator

- VIII. Using Wildcard Filtering**
 - A. Using the LIKE Operator
 - B. Tips for Using Wildcards

- IX. Searching Using Regular Expressions**
 - A. Understanding Regular Expressions
 - B. Using MySQL Regular Expressions

- X. Creating Calculated Fields**
 - A. Understanding Calculated Fields
 - B. Concatenating Fields
 - C. Performing Mathematical Calculations

- XI. Using Data Manipulation Functions**
 - A. Understanding Functions
 - B. Using Functions

- XII. Summarizing Data**
 - A. Using Aggregate Functions
 - B. Aggregates on Distinct Values
 - C. Combining Aggregate Functions

- XIII. Grouping Data**
 - A. Understanding Data Grouping
 - B. Creating Groups
 - C. Filtering Groups
 - D. Grouping and Sorting
 - E. SELECT Clause Ordering

- XIV. Working with Subqueries**
 - A. Understanding Subqueries
 - B. Filtering by Subquery
 - C. Using Subqueries As Calculated Fields

- XV. Joining Tables**
 - A. Understanding Joins
 - B. Creating a Join

- XVI. Creating Advanced Joins**
 - A. Using Table Aliases
 - B. Using Different Join Types
 - C. Using Joins with Aggregate Functions
 - D. Using Joins and Join Conditions

- XVII. Combining Queries**
 - A. Understanding Combined Queries
 - B. Creating Combined Queries

- XVIII. Full-Text Searching**
 - A. Understanding Full-Text Searching
 - B. Using Full-Text Searching

- XIX. Inserting Data**
 - A. Understanding Data Insertion
 - B. Inserting Complete Rows
 - C. Inserting Multiple Rows
 - D. Inserting Retrieved Data

- XX. Updating and Deleting Data**
 - A. Updating Data
 - B. Deleting Data
 - C. Guidelines for Updating and Deleting Data

XXI. Creating and Manipulating Tables

- A. Creating Tables
- B. Updating Tables
- C. Deleting Tables
- D. Renaming Tables

XXII. Using Views

- A. Understanding Views
- B. Using Views

XXIII. Working with Stored Procedures

- A. Understanding Stored Procedures
- B. Why Use Stored Procedures
- C. Using Stored Procedures

XXIV. Using Cursors

- A. Understanding Cursors
- B. Working with Cursors

XXV. Using Triggers

- A. Understanding Triggers
- B. Creating Triggers
- C. Dropping Triggers
- D. Using Triggers

XXVI. Managing Transaction Processing

- A. Understanding Transaction Processing
- B. Controlling Transactions

XXVII. Globalization and Localization

- A. Understanding Character Sets and Collation Sequences
- B. Working with Character Set and Collation Sequences

XXVIII. Managing Security

- A. Understanding Access Control
- B. Managing Users

XXIX. Database Maintenance

- A. Backing Up Data
- B. Performing Database Maintenance
- C. Diagnosing Startup Problems
- D. Review Log Files

XXX. Improving Performance

- A. Improving Performance