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## Introduction to MySQL

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**Course Duration** : 3 days

### Course Overview

The Introduction to MySQL course covers the basics of the SQL language as implemented by MySQL. The course is designed to give delegates practical experience in writing SQL statements using the MySQL client program and MySQL Workbench. The basic SQL statements, including the use of SQL functions and the basic table and view handling statements are introduced.

### Target Audience

- Anyone who needs to access and work with a MySQL Database.

### Skills Gained

- Using client programs to access a MySQL database
- Creating, altering and dropping a MySQL database
- Writing SQL statements to select data from a MySQL database
- Writing joins and subqueries
- Using SQL expressions
- Using SQL aggregate functions and scalar functions
- Inserting, updating, deleting and replacing rows
- Creating and altering tables, indexes and views
- Using transactions
- Granting and revoking access privileges on tables and views
- Exporting and importing data

### Certification

Together with the MySQL for Developers course, this course covers the major topics required for the MySQL 5.6 Developer Certified Professional Exam(1Z0-882).

Together with the MySQL Database Administration course, this Introduction to MySQL course will teach the major topics required for the delegate to work towards achieving the MySQL 5.6 Database Administrator Certified Professional Exam(1Z0-883).

Before taking any exam, ensure you have the recommended experience. The Oracle website lists all exam requirements and these are updated regularly.

Exams are not included as part of the course.

### Prerequisites

- There are no formal pre-requisites, although an understanding of databases and exposure to information technology in general would be useful.

### Objectives

Delegates will be able to :

- Create and alter a MySQL database and query and modify data held within such a database



## Course Content

### DATABASE CONCEPTS

What is a database?  
Database management systems  
Tables, rows and columns  
Indexes, primary keys, unique constraints & foreign keys  
Client-Server architecture  
Supported data types  
Storage engines and table types  
The Information\_Schema and MySQL Databases

### USING THE MySQL CLIENT

What is the MySQL client?  
Getting started and Logging in  
Selecting a database  
Client commands  
Entering and executing SQL statements  
Retrieving previous commands  
Creating, editing and executing SQL files  
Redirecting output into a file  
Command line execution of MySQL Scripts

### BASIC SELECT

The SQL SELECT statement  
Case sensitivity  
Quotes  
Statement terminator  
Syntax conventions  
The select clause  
The FROM clause  
Conditions and the WHERE clause  
Logical operators  
The ORDER BY clause  
Column aliases  
Arithmetic expressions  
Precedence of operators

### LIMIT, UNION AND AGGREGATE FUNCTIONS

The LIMIT clause  
UNION  
UNION ALL  
Aggregate functions  
The GROUP BY clause  
Using Rollup with GROUP BY  
The HAVING clause

### SUBQUERIES AND JOINS

Subqueries  
Cartesian products  
Joins with original syntax  
Table aliases  
Natural joins  
Join using  
Join on  
Multi-table joins

### NUMERIC AND CHARACTER FUNCTIONS

Function types  
Testing functions

Numeric functions  
Character functions  
**DATE, TIME AND OTHER FUNCTIONS**  
Date and time column types  
Date and time formats  
The date format function  
Functions to return date time  
Functions to extract components from date time  
Date time arithmetic  
Miscellaneous functions

### DATABASES AND TABLES

Creating a database  
Selecting a database  
Creating tables  
Auto\_increment  
Show create table  
Column operations  
Constraint operations  
Copying tables  
Renaming tables  
Changing engine for tables  
Dropping tables  
Temporary tables

### INDEXES AND VIEWS

What is an index?  
Creating an index  
Reviewing indexes  
Dropping indexes  
What is a view?  
Creating views  
View restrictions  
Dropping views

### MANAGING DATA

Inserting rows  
Replacing rows  
Updating rows  
Deleting rows  
The truncate statement  
The COMMIT and ROLLBACK commands  
Savepoints  
Implicit commits

### ACCESS CONTROL

Creating users  
Renaming users  
Dropping users  
Granting privileges  
Revoking privileges

### IMPORT AND EXPORT

Exporting using SQL  
Importing using SQL  
Exporting from the command line  
Importing from the command line

## Related Courses

[PHP Programming & MySQL for Web Development](#)  
[MySQL Database Administration](#)

## Training Options

- Public scheduled courses at one of our training venues
- Private course at your company office. Training can be delivered throughout the UK
- For further information please contact us on 0191 377 8377

## What's Included

- 1 delegate per computer
- Comprehensive course manual and exercises
- Lunch and refreshments when training is delivered at our training venue

