

# MySQL foundation

A 3 day **Hands on** training course



## Description

The MySQL foundation 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.



## Key outcomes

By the end of the course delegates will be able to:

- ✓ Create, alter and drop a MySQL database.
- ✓ Write SQL statements.
- ✓ Use SQL expressions and functions.
- ✓ Create and alter tables, indexes and views.
- ✓ Use transactions.
- ✓ Grant and revoke access privileges.
- ✓ Export and import data.



## Training Approach

This structured course uses Instructor Led Training to provide the best possible learning experience. Small class sizes ensure students benefit from our engaging and interactive style of teaching with delegates encouraged to ask questions throughout the course. Quizzes follow each major section allowing checking of learning. Hands on sessions are used throughout to allow delegates to consolidate their new skills.



## Details

### Who will benefit?

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

### Prerequisites

An understanding of databases and exposure to information technology in general would be useful.

**Duration:** 3 days

**Overall rating:**



### Generic Training



Generic training compliments product specific courses covering the complete picture of all relevant devices including the protocols "on the wire".

*"Friendly environment with expert teaching that teaches the why before the how."*  
G.C. Fasthosts

### Small Class Sizes



We limit our maximum class size to 8 delegates; often we have less than this. This ensures optimal interactivity between delegates and instructor.

*"Excellent course. The small class size was a great benefit..."*  
M.B. IBM

### Hands On Training



The majority of our courses use hands on sessions to reinforce the theory.

*"Not many courses have practice added to it. Normally just the theoretical stuff is covered."*  
J.W. Vodafone

### Our Courseware



We write our own courses; courseware does not just consist of slides and our slides are diagrams not bullet point text.

*"Comprehensive materials that made the course easy to follow and will be used as a reference point."*  
V.B. Rockwell Collins

### Customise Your Course



Please contact us if you would like a course to be customised to meet your specific requirements. Have the course your way.

*"I was very impressed by the combination of practical and theory. Very informative. Friendly approachable environment, lots of hands on."*  
S.R. Qinetiq

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## Course Content

### Database concepts

What is a database? database management systems, tables, rows and columns, indexes, primary keys, unique constraints and foreign keys, client-server architecture, supported data types, storage engines and table types, Information\_Schema and MySQL Databases.  
Hands on: using a database.

### 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.  
Hands on: Using the MySQL client.

### Basic SELECT

The SQL SELECT statement, case sensitivity, quotes, statement terminator, syntax conventions, SELECT clause, FROM clause, conditions and the WHERE clause, logical operators, ORDER BY clause, column aliases, arithmetic expressions, precedence of operators.  
Hands on: querying the sample database.

### LIMIT, UNION and AGGREGATE functions

The LIMIT clause, UNION, UNION ALL, aggregate functions, GROUP BY clause, using Rollup with GROUP BY, HAVING clause.  
Hands on: using limit, union and aggregate functions.

### Subqueries and joins

Subqueries, cartesian products, table aliases, natural joins, join using, join on, multi-table joins.  
Hands on: using subqueries and joins.

### Numeric and character functions

Function types, testing functions, numeric functions character functions.  
Hands on: using numeric and character functions.

### Data, time and other functions

Date and time column types, date and time formats, Date format function, functions to return date time, functions to extract components from date time, date time arithmetic, miscellaneous functions.  
Hands on: using date, time and other 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.  
Hands on: maintaining databases and 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.  
Hands on: maintaining indexes and views.

### Managing data

Inserting rows, replacing rows, updating rows, deleting rows, Truncate statement, The COMMIT and ROLLBACK commands, savepoints, implicit commits.  
Hands on: managing data.

### Access control

Creating users, renaming users, dropping users, granting privileges, revoking privileges.  
Hands on: creating users, granting and revoking.

### Import and export

Exporting using SQL, importing using SQL, exporting from the command line, importing from the command line.  
Hands on: export and import data.

