

# DATA ANALYTICS WITH MYSQL IN THE OIL & GAS INDUSTRY FOR MANAGERS

*“Transform Operational Decisions with Practical SQL-Based Data Insights”*

## Schedule

Venue	Fees
In-House	ASK FOR THE QUOTATION

## Introduction

This course is tailored for managers in the oil and gas sector seeking to make better decisions through data analytics. With a focus on MySQL, participants will learn how to extract, query, and interpret production, maintenance, and operational data to improve performance, forecast trends, and reduce downtime. No prior coding experience is required — the course bridges managerial needs with hands-on SQL tools and data-driven thinking.

## Objectives

By the end of this course, participants will be able to:

- Understand key data types and analytics concepts in oil & gas operations
- Use MySQL to run queries, filter data, and build decision-support dashboards
- Interpret data related to drilling, production, HSE, and equipment maintenance
- Perform basic trend analysis, aggregations, and performance comparisons
- Identify inefficiencies, predict issues, and support optimization strategies

## Why Attend

In today's digitized oil & gas operations, data is critical for efficiency, safety, and competitiveness. This course empowers managers to harness SQL analytics for actionable insights—without needing to be a data scientist.

## Target Audience

- Operations, Maintenance, and Production Managers
- HSE and Compliance Managers
- Asset and Field Development Team Leads
- Business Analysts and Strategy Advisors
- Any manager involved in decision-making based on technical or performance data

## Individual Benefits

- Learn practical SQL skills relevant to oil & gas operations
- Use data to justify investments, reduce downtime, and improve safety
- Gain confidence in interpreting KPIs, dashboards, and reports
- Improve your ability to collaborate with technical and data teams

## Organizational Benefits

- Strengthen data-driven culture across departments
- Improve asset management, downtime response, and resource allocation
- Enhance cross-functional coordination through shared data understanding
- Reduce reliance on external analytics by upskilling internal leadership

## Instructional Methodology

- Hands-on labs using MySQL and industry datasets
- Real case scenarios from drilling, production, and logistics
- Group data challenges and business decision simulations
- Guided report-building and KPI visualization sessions

## Course Outline

### DETAILED 5-DAY COURSE OUTLINE (CUSTOMIZABLE)

**Training Hours:** 7:30 AM – 3:30 PM

**Daily Format:** 3–4 Learning Modules | Coffee Breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

#### Day 1: Foundations of Data Analytics & SQL in Oil & Gas

**Module 1:** Oil & Gas Data Ecosystems – What Managers Need to Know (07:30 – 09:30)

**Module 2:** Introduction to Relational Databases and MySQL (09:45 – 11:15)

**Module 3:** Exploring Production and Maintenance Tables (11:30 – 01:00)

**Module 4:** Hands-on: Connecting to and Navigating a Sample MySQL Database (02:00 – 03:30)

#### Day 2: Querying and Extracting Useful Data

**Module 1:** Writing Basic SELECT Statements (07:30 – 09:30)

**Module 2:** Filtering with WHERE, LIKE, BETWEEN, and IN (09:45 – 11:15)

**Module 3:** Using ORDER BY and LIMIT for Results Management (11:30 – 01:00)

**Module 4:** Practical: Production Efficiency Queries (02:00 – 03:30)

#### Day 3: Aggregating, Joining, and Analyzing Key Metrics

**Module 1:** COUNT, AVG, SUM, MAX, MIN – Summarizing Data (07:30 – 09:30)

**Module 2:** GROUP BY and HAVING – Understanding Performance Trends (09:45 – 11:15)

**Module 3:** INNER JOIN, LEFT JOIN – Combining Datasets (11:30 – 01:00)

**Module 4:** Lab: Comparing Rig Utilization and Downtime Events (02:00 – 03:30)

#### Day 4: Real-World Operational Analysis

**Module 1:** Case: Identifying Causes of Equipment Failure Using SQL (07:30 – 09:30)

**Module 2:** HSE Data Review – Incident Rates and Compliance Monitoring (09:45 – 11:15)

**Module 3:** Asset Reliability and Predictive Maintenance Dashboards (11:30 – 01:00)

**Module 4:** Workshop: Building an Analytics Brief for Leadership (02:00 – 03:30)

#### Day 5: Reporting, Visualization & Strategic Insight

**Module 1:** Creating Simple Reports and Exporting Query Results (07:30 – 09:30)

**Module 2:** Integrating SQL Outputs with Excel and BI Tools (09:45 – 11:15)

**Module 3:** KPI Reporting for Drilling, Production & Safety (11:30 – 01:00)

**Module 4:** Final Group Presentation: Oil & Gas Data-Driven Strategy Pitch (02:00 – 03:30)

## Certification

Participants will receive the **Certificate in Data Analytics with MySQL in the Oil & Gas Industry for Managers** upon successful completion of the training, assessments, and group project. The certification verifies practical SQL proficiency and analytical thinking applied in upstream and downstream operations.

## Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
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Please contact us:

TEL:

**+601116373203**

EMAIL:

**info@mawaevents.net**

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