

Fundamentals 1 & 2

Do you want to upskill yourself in the most popular language in the Data World?
Then this course is for you!

By enrolling for one of our programmes, you will be taking the next crucial step towards gearing yourself for the digital revolution. In this era where data is regarded as the new oil, it is even more important to have the capability to transform raw data into an insightful and meaningful form, enabling more effective decision-making and facilitating business transformation.

At Moyo Hodari, we regard ourselves as astute data people. Our facilitators are experts in their respective disciplines. Apart from being exceptional trainers, they have vast experience in their respective fields of expertise. Our extensive knowledge of the intricate layers of the data world enables us to impart real understanding of how the entire data process works, before delving into the detailed functionalities of a specific programme or system. This holistic approach to data training has elevated us to be a leading training facility.

SQL is regarded as the most popular language in the data world. It is also the most commonly used withing various of technologies and leading organizations. Let's assist you and your team to gear yourself with SQL knowledge to your toolkit to take advantage of the Analytical world. Structured Query Language (SQL) is the standard and most widely used programming language for relational databases. It is used to manage and organize data in all sorts of systems in which various data relationships exist. SQL is a valuable programming language with strong career prospects.

Let's assist you and your team to gear yourself with SQL knowledge to your toolkit to take advantage of the Analytical world

Your Trainers are **Johan van Wyk** and **Jurgens de Bruin**.





Johan is a Senior Consultant with extensive experience in the Information Technology and Services industry. Skilled in Big Data Analytics, Data Science, Machine Learning, Descriptive Analytics, Team Management, Bioinformatics, Computational Biology and Python (Programming Language), Johan is sure to make this training event a worthy investment.

Jurgens is a Functional Manager with a demonstrated track record of working in the Information Technology and Services industry. Skilled in Big Data Analytics, Data Science, Machine Learning, Descriptive Analytics, Team Management, Bioinformatics, Computational Biology and Python (Programming Language), Johan is a true professional with a master's degree in Bioinformatics, Biochemistry and Computational Biology from the University of Pretoria.



	Audience Overview	This course is designed for the beginner to intermediate-level SQL user. It is for anyone who works with data – regardless of technical or analytical background. During this course you should be able to gain the basic understanding of what SQL is about and how to use the most common functionalities. Typical users include: <ul style="list-style-type: none">• Analytical Teams or users that interact with the Analytical team's data.• Students looking to advance their careers in the data world.• Report Writers / Builders – Users that will typically build reports.• Beginner Web developers and Programmers
	Course Outcomes	At the end of this course, you should be able to: Gain the basic understanding of SQL principals and fundamentals like: <ul style="list-style-type: none">• Select Statement• INSERT, UPDATE and DELETE• How to use Stored Procedures• How to create and modify Views
	Course Outline	Setting the Scene <ul style="list-style-type: none">• What is SQL?• Relationship Databases• What are the Fundamentals of SQL?• What are the Principals and Standards of SQL?• How do you implement or install SQL?• What is SQL Syntax

	<p>Course Outline</p>	<p>Module 1 – Select Statements Introduction and Overview</p> <ul style="list-style-type: none"> • Write and Select the Basic SELECT Statement on Columns using WHERE, BETWEEN, NULL, ORDER, TOP, GROUP BY / ALL, DISTINCT, SELECT, INTO Clause etc. • Querying from more than one Data Source using INNER, OUTER, CROSS Joins or performing self joins. • Using Derived Tables, Combining Results by UNION, CROSS APPLY, etc • Using APPLY to Invoke a Table-Value Function for each ROW, CROSS APPLY, OUTER APPLY • Data Source Advance Techniques like TABLESAMPLE to return random Rows, PIVOT, Columns and aggregated Data and Normalizing Data with UNPIVOT, Return Distinct or Matching Rows using EXCEPT and INTERSECT, Summarizing or grouping Data with CUBE, Using Hints for Join, Query and Tables <p>Module 2: INSERT, UPDATE, DELETE INSERT</p> <ul style="list-style-type: none"> • Inserting a Row into a Table • Inserting a Row Using Default Values • Inserting a Row into a Table with a Unique-identifier Column • Inserting Rows Using an INSERT...SELECT Statement. • Inserting Data from a Stored Procedure Call <p>UPDATE</p> <ul style="list-style-type: none"> • Updating a Single Row • Updating Rows Based on a FROM and WHERE Clause • Updating Large Value Data Type Column • Inserting or Updating an Image File Using OPENROWSET <p>DELETE</p> <ul style="list-style-type: none"> • Deleting Rows • Truncating a Table • Using the OUTPUT Clause with INSERT, UPDATE, DELETE • Chunking Data Modifications with TOP • Deleting Rows in Chunks <p>MODULE 3: STORED PROCEDURES</p> <ul style="list-style-type: none"> • How to create a basic or parameterized Stored Procedure? • Using OUTPUT Parameters • Modifying a Stored Procedure • Dropping Stored Procedures • Executing Stored Procedures Automatically at SQL Server Startup • Reporting Stored Procedure Metadata • Documenting Stored Procedures • Stored Procedure Security and Encrypting • Using EXECUTE AS to Specify the Procedure’s Security Context • Recompilation and Caching • Flushing the Procedure Cache <p>Module 4: Views</p> <ul style="list-style-type: none"> • Overview • Creating and Querying Views • Reporting on Database Views • Refreshing, modifying, and dropping views • Encrypting a View • Creating an Indexed View • Forcing the Optimizer to Use an Index for an Indexed View • Partitioned Views
	<p>What is Included?</p>	<p>This course includes a workbook containing key concepts on each topic covered and hands-on activities to reinforce the skills and knowledge attained. It also includes a digital student resources folder containing SQL workbooks and data sources to support the hands-on activities.</p>

Duration

Virtual Two-day Course presented over a 5 day period

Prerequisites

Access to the SQL Sandbox /Training Environment (This will be provided once enrolled)

Cost

R4,950 per learner (excl.)