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The SQL Essentials training & Certification provides in-depth knowledge to the delegates about the SQL, and the delegates will understand how to write SQL Structured Query Language from scratch. With the help of training, the delegates will get to know how to write SQL by using the Microsoft's SQL Server Management Studio. The training enables the delegates to sort, retrieve, filter, aggregate, group and calculate the data stored in a SQL Server database.

Throughout the SQL Essentials training, the delegates will understand how to how to interrogate data from a relational database. The delegates will also learn how to manipulate this data and get to know how to perform an operation such as Insert, update, and delete records on the data. With the help of training the delegates also understand how to interrogate data and SQL is a common language easily adapted to other RDBMS (relational database management systems) including MySQL, Microsoft Access, IBM DB2, Oracle, PostgreSQL, Ingres and Sybase.

## Prerequisites

There are no prerequisites for attending the SQL Essentials Training & Certification

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## Course Objectives

After the completion of SQL Essentials Training & Certification at Silicon Beach Training, the delegates will be able to:

- Define RDBMS and three normalisation forms
- To Create and Manage Tables by using DDL Statements
- Manipulating Data Using DML
- Retrieving Data Using the SQL Select Statement
- Restricting and Sorting Data
- Displaying Data from Multiple Tables
- Using the built-in function

### Understanding SQL

- Overview of Database Basics
- What is SQL?

### Retrieving Data

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## Sorting Retrieved Data

- Sorting Data
- Sorting By Multiple Columns
- Sorting By Column Position
- Specifying Sort Direction

## Filtering Data

- Using the WHERE Clause
- The WHERE Clause Operator

## Advanced Data Filtering

- Combining WHERE Clauses
- Using the IN Operator
- Using the NOT Operator

## Using Wildcard Filtering

- Using the LIKE Operator
- Tips For Using Wildcards

## Creating Calculated Fields

- Understanding Calculated Fields
- Concatenating Fields
- Performing Mathematical Operations

## Using Data Manipulation Functions

- Understanding Functions
- Using Functions

## Summarizing Data

- Using Aggregate Functions
- Aggregates on Distinct Values
- Combining Aggregate Functions

## Grouping Data

- Understanding Data Grouping
- Creating Groups
- Filtering Groups
- Grouping and Sorting
- SELECT Clause Ordering

## Working with Subqueries

- Understanding Subqueries
- Filtering By Subquery
- Using Subqueries As Calculated Fields

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- Understanding Joins
- Creating a Join

## Creating Advanced Joins

- Using Table Aliases
- Using Different Join Types
- Using Joins With Aggregate Functions
- Using Joins And Join Conditions

## Combining Queries

- Understanding Combined Queries
- Creating Combined Queries

## DDL (Data Definition languages) Commands

- Relation Database Management System (RDBMS)
- Normalization
- Create Database objects
- Data Types in SQL
- Alter Table Statements
- Drop Table Statements
- Various Constraints
- Creating Views

## DML (Data Manipulation language) Commands

- Insert Statements
- Insert – As- Select Statement
- Update Statements
- Truncate Statements
- CASE Expression
- Delete Statements
- Select Statement
- Sorting and Filtering
- SQL wildcard

## Retrieve data from multiple tables

- Self-Join
- Inner Join
- Left Join
- Right Join
- Cross Join

## Inbuilt Functions in SQL

- Conversion Function
- Math Function
- String Functions
- Logical Functions
- Aggregate Functions
- Data Functions

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- Custom Functions
- Stored Procedure
- Triggers

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