

# SQL Essentials Training & Certification



## About Ecorporate Trainings

Ecorporate Trainings is designed to empower professionals with flexible, engaging, and personalised training solutions that drive career growth and organisational success.

We offer a learner-centric experience that allows employees to access a rich repository of courses and resources anytime, anywhere, on any device. Our platform features intuitive navigation, clear progress tracking, and interactive content tailored to diverse learning styles and proficiency levels.

## About the Course

SQL skills are highly sought after in web development, programming, data analysis and reporting environments. Learn how to write SQL (Structured Query Language) using Microsoft's SQL Server Management Studio from scratch with SQL Essentials training course.

# Curriculum

## DDL (Data Definitions Language) Commands

**Goal:** Data Definition Commands defines the syntax of a database and manipulate database objects.

### Module Objectives:

- RDBMS (Relational Database Management System) Introduction
- Normalization in RDBMS
- Create database objects i.e. Create Table
- Delete database objects i. e. Delete Database
- Alter database objects i.e. Change Column Name
- Create, alter and delete constraints

### Topics:

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

### Hands-on/Demo/Use-case:

- Create Table With Predefine Columns
- Add New Column to Existing Table
- Check the constraints on a table
- Add Primary Key and Foreign Key on Table
- Remove Unique Constraint



# DML (Data Manipulation Language) Commands

Goal: DML Commands help to work with existing data. Using these commands we can add, modify, or delete the data.

## Module Objectives:

- Insert record/data in tables
- Modify/Update the existing data
- Retrieve the data from database from single table
- Use of operators for data retrieval
- Delete the data from tables

## Topics:

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

## Hands-on/Demo/Use-case:

- Insert the records in an existing table
- Delete selective records
- Update data in the table based on data from another table

# Retrieve data from multiple tables

Goal: To combines columns from multiple tables in a database by using values common to tables

## Module Objectives:

- Retrieve records from multiple tables

## Topics:

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

## Hands-on/Demo/Use-case:

- Retrieve data from multiple tables

# Inbuilt Functions in SQL

Goal: Use Built-In functions to calculate values and manipulate data

## Module Objectives:

- Use of Built-in Functions
- Use of Group by Command
- Use of Having Commands

## Topics:

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

## Hands-on/Demo/Use-case:

- Determine the Count of rows satisfying a certain condition
- Determine average of a column
- Determine Sum of a column

# Create Advance database objects

Goal: To create advanced database objects for data manipulation and data retrieval

## Module Objectives:

- Create Stored Procedure
- Execute Stored Procedure
- Create Functions
- Create Triggers

## Topics:

- Custom Functions
- Stored Procedure
- Triggers
- Hands-on/Demo/Use-case:
- Create Functions
- Create Triggers
- Create and Execute Stored Procedure

## Hands-on/Demo/Use-case:

- Create Functions
- Create Triggers
- Create and Execute Stored Procedure

# Project

## What are the system requirements for this course?

The system requirement for this course is a system with Intel i3 processor or above; minimum 3GB RAM (4GB recommended) and an operating system can be of 32bit or 64 bit. In addition, you require Microsoft SQL server 2005 or above.

## How will I execute the practicals?

The installation manual for installation into Windows system will be provided with step by step execution along with the screenshots.

## Which Projects will be a part of the course?

Below are the projects you will work on as part of this course:

- Building a Multi table Relational Database
- Problems and exercises based on given schema.

# Industry-recognised Certificate

Upon successful completion of the course, you will receive an industry-recognised certificate of completion from Ecorporate Trainings.



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## Completion Certificate



### **SQL ESSENTIALS TRAINING**



This certificate is awarded to an individual or team that  
has demonstrated exceptional work quality or results  
in the relevant project.



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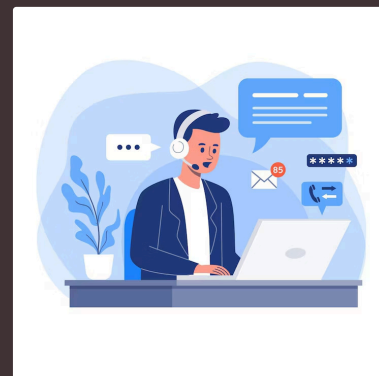
# Ask your queries to our experts!

Ecorporate Trainings course counsellors and learner support advisors are available 24×7 to help you with your learning needs.

Call us on 9663241204!

or

E-mail us on [ecorporatetrainings@gmail.com](mailto:ecorporatetrainings@gmail.com)!



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