

**SAMBODHI**



**Microsoft**



# **MS SQL Server Developers Course**

Project Based Immersive Learning Course

## **MS SQL Server Developers Course Overview**

The SQL Server developer training course aims to equip individuals with the essential skills and knowledge required to develop, implement, and maintain databases utilizing Microsoft SQL Server, which is a relational database management system. By enrolling in this training course, individuals can learn the abilities needed to excel in real-world data collection and storage scenarios. The course covers basic to advance level topics based on the IT industry requirements, including designing and implementing database schemas, querying data using Transact-SQL, managing database security, optimizing database performance, and using advanced features such as stored procedures, triggers, and functions. With this course, individuals can gain practical experience working with SQL Server. SQL Server is widely used in organizations to store, access, and manage large amounts of data.

### **Benefits of MS SQL Server Developers Course:**

SQL Server is a relational database management system created by Microsoft that offers several advantages for developers. The structured query language server transformation market is anticipated to be worth \$26.93 billion by 2030, indicating the software's growing popularity. MS SQL is a high-speed database that incorporates powerful security features to safeguard data and give

users greater control over their databases. By mastering MS SQL Server developing skills, you can enhance your productivity, insight, and overall value to your organization, potentially leading to career advancement opportunities. To excel in this field and secure a lucrative job, gaining expertise as a Microsoft SQL Server developer is highly recommended.

## Who should learn?

- SQL Server Developer
- MS SQL Developer
- Software Engineer
- Programming enthusiasts
- Engineering graduates
- Students who all want to become SQL Server Developer developers

## Why do you need MS SQL Server Developers Course?

### Average Salary Growth:

The average salary growth of a Microsoft SQL Server developer can vary based on factors such as location, years of experience, industry, and skill level. According to Payscale, as of April 2023, the average salary for a SQL Server developer in the United States is approximately \$78,000 per year for entry-level roles and can go up to \$122,000 per year for senior-level positions.

### Industries:

The demand for Microsoft SQL Server developers is consistently high in various MNCs (multinational corporations) across different industries. This is because SQL Server is widely used as a database management system in organizations of all sizes and sectors. Additionally, various job portals and recruitment websites show a consistent demand for Microsoft SQL Server developers across multiple industries. Microsoft, Infosys, Wells Fargo,

Capgemini, eBay, and other top MNCs around the world have started using MS SQL servers as SQL database tool.

## **Position in Market:**

According to the Bureau of Labor Statistics, employment of database administrators, which includes SQL Server developers, is projected to grow 10% from 2020 to 2030, which is faster than the average for all occupations. This indicates a continued demand for skilled SQL Server developers in the job market. Also according to Future Market Insights, the global SQL server transformation market is expected to grow at a remarkable CAGR of 10.1% from 2022 to 2029.

## **Designations:**

- SQL Server Developer
- MS SQL Developer
- Software Engineer
- SQL Server Application Developer

## **Why MS SQL Server Developers Course from Education Nest**

- **Free Demo on Request**
- **Live Interactive Learning**
- **Lifetime Access**
- **Flexible Schedules**
- **24x7 Support**
- **One on One Doubt Clearing**
- **Real Time Project-Based Learning**
- **Certificate Oriented Curriculum**

## **Key Skills Covered:**

- SQL Server Architecture
- Querying and Data Manipulation
- SQL Server Development Tools
- Transact-SQL Programming
- Data Integration and ETL
- Reporting and Business Intelligence
- Security and Performance Optimization

## **MS SQL Server Developers Course Syllabus**

### **Module 1: (Introduction to DBMS)**

- File Management System And Its Drawbacks
- Database Management System (DBMS) and Data Models
- Physical Data Models
- Logical Data Models
- Relational Data Model (RDBMS)
- Object Relational Data Model (ORDBMS)
- Entity – Relationship (E-R) Model

### **Module 2: (Introduction to SQL Server)**

- Advantages and Drawbacks Of SQL Server Compared To Oracle And DB2
- Connecting To Server
- Server Type
- Server Name

- Authentication Modes
- Sql Server Authentication Mode
- Windows Authentication Mode
- Login and Password
- Sql Server Management Studio and Tools In Management Studio

### **Module 3: (TSQL (Transact Structured Query Language))**

- Types Of TSQL Commands
- Data Definition Language (DDL)
- Data Manipulation Language (DML)
- Data Query Language (DQL)
- Data Control Language (DCL)
- Transaction Control Language (TCL)
- Database(Create, Alter, Drop)
- Constrains
- Procedural Integrity Constraints
- Declarative Integrity Constraints
- Not Null, Unique, Default and Check constraints
- Primary Key and Referential Integrity or foreign key constraints
- Data Types In TSQL
- Table(Create, Alter, Drop)

### **Module 4: (Data Manipulation Language (DML))**

- Insert
- Identity
- Creating A Table From Another Table
- Inserting Rows From One Table To Another
- Update
- Delete
- Truncate

- Differences Between Delete and Truncate

## **Module 5: (Data Query Language (DQL))**

- Select
- Where clause
- Order By Clause
- Distinct Keyword
- Isnull() function
- Column aliases
- Between ... And
- In
- Like
- Is Null

## **Module 6: (Functions)**

- Scalar Functions
- Numeric Functions
- Date Functions
- Aggregate Functions
- Group By and Having Clauses
- Super Aggregates Over(partition by ...) Clause
- Ranking Functions
- Common Table Expressions (CTE)

## **Module 7: (Joins)**

- Scalar Functions
- Numeric Functions
- Date Functions

- Aggregate Functions
- Group By and Having Clauses
- Super Aggregates Over(partition by ...) Clause
- Ranking Functions
- Common Table Expressions (CTE)

## **Module 8: (Sub Queries)**

- Left tool
- Single Row Sub Queries
- Multi Row Sub Queries
- Co-Related Sub Queries

## **Module 9: (Indexes)**

- Clustered Index
- Non Clustered Index
- Create , Alter and Drop Indexes
- Using Indexes

## **Module 10: (Views)**

- Purpose Of Views
- Creating , Altering and Dropping Indexes
- Simple and Complex View
- Encryption and Schema Binding Options in creating views

## **Module 11: (Transaction Management)**

- Introduction
- Begin Transaction

- Commit Transaction
- Rollback Transaction
- Save Transaction

## **Module 12: (Cursor)**

- Working With Cursors
- Types Of Cursors
- Static, Dynamic and Keyset Cursors
- Local and Global Cursors

## **Module 13: (Stored Procedures)**

- Creating , Altering and Dropping
- Input and Output Parameters

## **Module 14: (User Defined Functions)**

- Creating, Altering and Dropping
- Types Of User Defined Functions
- Table Valued Functions
- Inline Table Valued Functions
- Multi Statement Table Valued Functions

## **Module 15: (Triggers)**

- Purpose of Triggers
- Differences Between Stored Procedures and User Defined Functions and Triggers
- Creating, Altering and Dropping Triggers



## **Module 16: (Exception Handling)**

- Implementing Exception Handling
- Adding and removing User Defined Error Messages To And From SQL Server Error Messages List

## **Module 17: (Security)**

- Login Creation
- SQL Server Authenticated Login
- Windows Authenticated Login
- User Creation
- Granting Permissions
- Revoking Permissions

## **Career Support**

### **Profile Building:**

Experienced professionals are available to offer tailored assistance in crafting your CV and online profiles, taking into account your unique educational and experiential background.

### **Interview Preparation:**

The upcoming interview preparation service will include personalized one-on-one sessions and the option for mock interviews if needed.

## **Job Referrals:**

At Education Nest, we receive a variety of job requirements from diverse sources such as organizations, our clients, HR consultants, and a vast network of Education Nest currently employed in different companies. We strive to meet these varied requirements to the best of our abilities.

## **Continuous Support:**

We offer continuous support for as much time as you need it, and a considerable number of our learners receive multiple interviews offers and promising employment opportunities as a result of the abilities they gain during the program.