

**SQL (Structured Query Language)**

Duration: 50 hours

S.no	Topics
1	<b>Introduction to SQL</b>
2	What is SQL?
3	Purpose of SQL
4	Who should learn SQL?
5	What are the subsets of SQL?
6	Data Definition Language
7	Data Manipulation Language
8	Data Control Language
9	<b>Introduction to Databases and RDMBS</b>
	What is a Database?
10	Database Objects, Database Tables, Table Records
11	Types of Database Management Systems, Relational Database Management Systems, and SQL/Relational Databases vs. No SQL Databases)
12	<b>Install a Database Engine</b>
13	Download MS SQL Server
14	Launch SQL Server Management Studio
15	Select New Query
16	Launch SQL Query
17	Type SQL Commands
18	<b>SQL Syntax</b>
19	Focus on SQL Syntax
20	SQL keywords, SQL is not case sensitive, SQL Comments
21	SQL Commands, and writing SQL Statements
22	<b>SQL Data Types</b>
23	SQL Numeric data types
24	Date and Time data types
25	Character and String data types

26	Unicode character string data types
27	Binary data types, and Miscellaneous data types
28	<b>SQL Operators</b>
29	SQL Arithmetic Operator
30	Comparison Operators
31	Logical Operators
32	Bitwise Operators
33	<b>SQL Expression</b>
34	SQL Boolean Expression
35	SQL Numeric Expression
36	SQL Date Expression
37	<b>SQL Comments</b>
38	SQL Comments
39	Comments are used to explain sections of SQL statements, or to prevent the execution of SQL statements.
40	Single-Line Comments and Multi-line Comments
41	<b>SQL – Data Definition Language Commands and Operations</b>
42	SQL Data Definition Language Commands, Create, Alter, Drop, Truncate, and Rename
43	Data Definition Language Operations, Create a Database
44	Use Database, Rename a Database, Drop Database, Create a Table, Rename Table, Add a Column to existing Table
45	Add multiple columns to existing Table, Modify an existing column, Rename a Column, Drop a Column, Truncate a Table, and Drop a Table.
46	<b>SQL – Data Manipulation Language Commands and Operations</b>
47	Data Manipulation Language Operations, Retrieving data from a table
48	Inserting data into a table, Updating existing data into a table and Deleting all records from a table.
49	<b>SQL – Data Control Language Commands</b>
50	DCL includes commands such as GRANT and REVOKE which mainly deal with the rights, permissions, and other controls of the database system

51	<b>SQL Functions</b>
52	SQL Aggregate Functions
53	SQL String Functions
54	SQL Date Functions and SQL Scalar functions
55	<b>SQL Queries and Sub Queries</b>
56	INNER QUERY
57	NESTED QUERY
58	<b>SQL Clauses</b>
59	Where clause, Union Clase, Order By clause, etc.
60	<b>SQL Joins</b>
61	SQL Outer Join
62	SQL Left Join
63	SQL Right Join
64	SQL Full Join
65	SQL Cross Join
66	<b>SQL Views</b>
67	Virtual tables
68	<b>SQL Indexes</b>
69	schema object
70	<b>SQL Transactions</b>
71	<b>SQL Injection</b>
72	<b>Data Management in Different Time Zone</b>
73	<b>Regular Expression Support</b>