

SQL (Structured Query Language)

Duration: 50 hours

S.no	Topics
1	Introduction to SQL
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	Introduction to Databases and RDMBS
	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	Install a Database Engine
13	Download MS SQL Server
14	Launch SQL Server Management Studio
15	Select New Query
16	Launch SQL Query
17	Type SQL Commands
18	SQL Syntax
19	Focus on SQL Syntax
20	SQL keywords, SQL is not case sensitive, SQL Comments
21	SQL Commands, and writing SQL Statements
22	SQL Data Types
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	SQL Operators
29	SQL Arithmetic Operator
30	Comparison Operators
31	Logical Operators
32	Bitwise Operators
33	SQL Expression
34	SQL Boolean Expression
35	SQL Numeric Expression
36	SQL Date Expression
37	SQL Comments
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	SQL – Data Definition Language Commands and Operations
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 exiting 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	SQL – Data Manipulation Language Commands and Operations
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	SQL – Data Control Language Commands
50	DCL includes commands such as GRANT and REVOKE which mainly deal with the rights, permissions, and other controls of the database system

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