

## SQL (Structured Query Language) Syllabus

Course Duration (2 Months)

### 1. Introduction to SQL

(What is SQL?, Purpose of SQL, Who should learn SQL?, What are the subsets of SQL?, Data Definition Language, Data Manipulation Language, Data Control Language, and SQL vs. NoSQL)

### 2. Introduction to Databases and RDMBS

(What is a Database?, Database Objects, Database Tables, Table Records, Types of Database Management Systems, Relational Database Management Systems, and SQL/Relational Databases vs. No SQL Databases)

### 3. Install a Database Engine

(Download MS SQL Server or Oracle or MySQL Database Engine, and Install. Launch SQL Server Management Studio, Select New Query, and launch SQL Query. Type SQL Commands and Execute.)

### 4. SQL Syntax

(Focus on SQL Syntax, SQL keywords, SQL is not case sensitive, SQL Comments, SQL Commands, and writing SQL Statements.)

### 5. SQL Data Types

(SQL Numeric data types, Date and Time data types, Character and String data types, Unicode character string data types, Binary data types, and Miscellaneous data types.)

### 6. SQL Operators

(SQL Arithmetic Operators, Comparison Operators, Logical Operators,

### 7-SQL Database

SQL CREATE Database,SQL DROP Database,SQL RENAME Database,SQL SELECT Database

### 8-SQL Table

What is TableSQL, CREATE TABLE,SQL DROP TABLE,SQL DELETE TABLE,SQL RENAME TABLE,SQL TRUNCATE TABLE,SQL COPY TABLE, SQL ALTER TABLE

### 9-SQL Select

SELECT Statement,SQL SELECT UNIQUE,SQL SELECT DISTINCT,SQL SELECT COUNT,SQL SELECT TOP,SQL SELECT FIRST,SQL SELECT LAST,SQL SELECT RANDOM,SQL SELECT IN,SQL SELECT Multiple,SQL SELECT DATE,SQL SELECT SUM,SQL SELECT NULL

### 10-SQL Clause

SQL WHERE,SQL AND,SQL OR,SQL WITH,SQL AS,SQL HAVING Clause

### 11-SQL Order By

ORDER BY Clause,ORDER BY ASC,ORDER BY DES,CORDER BY RANDOM,ORDER BY LIMIT,ORDER BY Multiple Cols

**12-SQL Insert**

INSERT Statement,INSERT INTO Values,INSERT INTO SELECT,INSERT Multiple Rows

**13-SQL Update**

UPDATE Statement,UPDATE Specific record,SQL UPDATE DATE

**14-SQL Delete**

DELETE Statement,SQL DELETE TABLE,SQL DELETE ROW,SQL DELETE All Rows,DELETE Duplicate Rows,SQL DELETE DATABASE,SQL DELETE VIEW,SQL DELETE JOIN

**15-SQL Join**

SQL JOIN,SQL Outer Join,SQL Left Join,SQL Right Join,SQL Full Join,SQL Cross Join

**16-SQL Keys**

Primary Key,Foreign Key,Composite Key,Unique Key,Alternate Key

**17- SQL Functions**

**18. SQL Views**

**19-SQL Indexes**

**20- Other/ Misc.**

Network Net

**Popular Relational Database Management Systems**

Oracle

MS Access

MS SQL Server

MYSQL

SyBase

DB2

DB/400 etc.