SQL TOPICS

**(Training)**

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[1. Basics 2](#_Toc148305782)

[1.1 What is SQL, RDBMS? 2](#_Toc148305783)

[1.2 SQL Commands 2](#_Toc148305784)

[1.3 Data Types 2](#_Toc148305785)

[1.4 Constraints 3](#_Toc148305786)

[1.5 Normalization in SQL 3](#_Toc148305787)

[1.6 Operators 3](#_Toc148305788)

[1.7 CASE statement 3](#_Toc148305789)

[1.8 Important SQL clause 3](#_Toc148305790)

[1.9 INNER join 4](#_Toc148305791)

[2. Intermediate 5](#_Toc148305792)

[2.1 Group By and Having clause. 5](#_Toc148305793)

[2.2 Aggregate functions 5](#_Toc148305794)

[2.3 Order of Execution in SQL Queries 5](#_Toc148305795)

[2.4 Sub-Queries 5](#_Toc148305796)

[2.5 CTE table / WITh clause, Recursive CTE 5](#_Toc148305797)

[2.6 All type of Joins 5](#_Toc148305798)

[2.7 In-built functions 5](#_Toc148305799)

[2.8 Window functions 5](#_Toc148305800)

[2.9 Analytical functions 6](#_Toc148305801)

[2.10 Views IN SQL 6](#_Toc148305802)

[3. Advanced SQL 7](#_Toc148305803)

[4. Basics Topics 7](#_Toc148305804)

# 

# Basics

## What is SQL, RDBMS?

## SQL Commands

 DDL commands

 CREATE, ALTER, DROP, TRUNCATE

 DML commands

 INSERT, UPDATE, DELETE, MERGE

 TCL commands

 COMMIT, ROLLBACK and SAVEPOINT, Acid Properties

DCL commands

 GRANT and REVOKE

 DQL commands

 SELECT statement

## Data Types

 String data type like VARCHAR, TEXT etc

 Integer data type like INT, NUMBER

 DATE

 FLOAT / DECIMAL

 BOOLEAN

 IDENTITY column (Auto Increment column)

## Constraints

PRIMARY KEY, FOREIGN KEY, UNIQUE, CHECK, NOT NULL and



DEFAULT constraints

 Understanding how foreign key and primary is used to build relationship between tables.

## Normalization in SQL

 Different normal forms like 1NF, 2NF, 3NF,BCNF

## Operators

Arithmeticoperator

 Logical operator

 Comparison operator

 UNION, UNION ALL operator

## CASE statement

 Simple case statement as well nested case statement.

## Important SQL clause

 DISTINCT clause

 Order by clause

 Top clause

## INNER join

 How to fetch data from multiple tables.

# Intermediate

## Group By and Having clause.

## Aggregate functions

 MIN, MAX, AVG, SUM, COUNT

## Order of Execution in SQL Queries

## Sub-Queries

 Different type of subqueries like scalar subquery, multirow subquery and correlated subqueries

## CTE table / WITh clause, Recursive CTE

## All type of Joins

LEFT Join, RIGHT Join, FULL OUTER Join,

CROSS Join, SELF Join

## In-built functions

String functions like Substring, Position, Coalesce

 Date functions

 Data type conversion convert, cast

## Window functions

 RANK, DENSE\_RANK, ROW\_NUMBER, SUM, COUNT, AVERAGE, MAX, MIN

## Analytical functions

LEAD, LAG,PERCENT\_Rank, FIRST\_VALUE, LAST\_VALUE, NTH\_VALUE, NTILE.etc

## Views IN SQL

# Advanced SQL

* Recursive SQL Queries
* Index
* PIVOT table
* Materialized Views
* Stored Procedure
* User Defined Functions

# Basics Topics

* How to import/export data from one server to another server?
* How to import Query result into a file?
* How to import file data into table?
* How to see blockers from Activity Monitor?
* How to check Job History from Sql Server agent?
* How to create a job and its schedule?
* What is Sql Server agent?
* How to create a new object using if exist, if not exist?
* What is NoLock ?
* What are local and global temp tables?
* Difference b/w select \* into and insert into?
* Explore SSMS UI on getting scripts from UI?

=================================**Complete**======================================