

SESSION WILL BE DIVIDED INTO

1. Understanding what are functions in SQL
2. Scalar functions in SQL
3. Starting with STRING FUNCTIONS
4. Attaching the previous sheet operators
5. Writing lots of queries
6. Closing the session

SECTION 1

What Are Functions In SQL?

FUNCTIONS IN SQL

- SQL **functions** are used to perform operations on data.
- Functions can be applied to values or columns in SQL queries to manipulate and retrieve data in various formats.
- These functions make SQL queries more powerful and efficient.
- SQL functions are typically divided into two main categories
 - **Single-Row (Scalar) Functions:** Operate on a single value and return a single result.
 - **Aggregate Functions:** Operate on multiple values and return a single aggregated result.

SECTION 2

Scalar Functions In SQL

FUNCTIONS IN SQL

- **Single-Row (Scalar) Functions:** Operate on a single value and return a single result.
- Total types of Single-Row (Scalar) functions:
 - String functions
 - Numeric Functions
 - Date Functions
 - Conversion Functions

SECTION 3

String Functions In SQL

- String functions

Sr. No	Function Name	Description	Syntax
1.	SPLIT()	Splits the words from sentence based on separator.	SPLIT(Column, Separator)
2.	SPLIT_PART()	Splits the words from sentence based on separator. Returns the word number passed as input.	SPLIT_PART(Column, Separator, Part)
3.	CONCAT()	Concatenates two or more strings.	CONCAT(Col1, col2, col3, ..., coln)
4.	CONCAT_WS()	Concatenates two or more strings based on separator.	CONCAT_WS(Sep, col1, col2,..., coln)
5.	LENGTH()	The function returns the number of characters present in a string.	LENGTH(column name)
6	Startswith()	Checks if the string starts with the given expression and returns True, else False	Startswith(column name, <expr>)
7	Upper() & lower()	Returns the string in upper or lower as per passed	UPPER(column name); LOWER(column name);
8	LTRIM()	Removes the characters from the leading part of string	LTRIM(column name, <expr>)
9	RTRIM()	Removes from ending part	RTRIM(column name, <expr>)
10	TRIM()	Removes from both side	TRIM(column name, <expr>)

SECTION 4

OPERATORS IN SQL

- Arithmetic Operator

Sr. No	Operator Name	Description
1.	+	Used for Addition
2.	-	Used for Subtraction
3.	*	Used for Multiplication
4.	/	Used for Division
5.	%	Used for modulus (Reminder)

- Logical Operators

Sr. No	Operator Name	Description
1.	AND	True, if both conditions True
2.	OR	True, if either condition True
3.	NOT	Reverses the condition

SECTION 4

OPERATORS IN SQL

- Logical Operator

Sr. No	Operator Name	Description
1.	=	Equal to
2.	!= or <>	Not Equal to
3.	>	Greater Than
4.	<	Less Than
5.	>=	Greater Than or equal to
6.	<=	Less Than or equal to
7.	LIKE	PATTERN MACHING
8.	IN	Checks if any value matches from the list
9	IS NULL	Checks if value is null
10.	BETWEEN	Checks if value is in between given range