Summary of Operators & Functions🔗

Snowflake supports most of the standard operators and functions defined in SQL:1999, as well as parts of the SQL:2003 analytic extensions.

In this Topic:

- Operators
- Scalar Functions
- Aggregate Functions
- Table Functions
- User-defined Functions (UDFs)

Operators🔗

Category/Sub-category	Operators
Arithmetic Operators	
	`+` , `-` , `*` , `/` , `%`
Comparison Operators	
	`=` , `!=` , `<>` , `<` , `<=` , `>` , `>=`
Logical/Boolean Operators	
	AND , NOT , OR

Scalar Functions🔗

Category/Sub-category	Functions
Bitwise Expression Functions	
Category/Sub-category	Functions
	BITAND , BITNOT , BITOR , BITSHIFTLEFT , BITSHIFTRIGHT , BITXOR (see also: Bitwise Aggregation Functions)

, ... , ... (see also ... — Aggregate — Functions)

Conditional Expression Functions

	[NOT] BETWEEN , BOOLAND , BOOLNOT , BOOLOR , BOOLXOR , CASE , COALESCE , DECODE , EQUAL_NULL , GREATEST , IFF , IFNULL , [NOT] IN , IS [NOT] DISTINCT FROM , IS [NOT] NULL , IS_NULL_VALUE , LEAST , NULLIF , NVL , NVL2 , REGR_VALX , REGR_VALY , ZEROIFNULL

Context Functions

General	CURRENT_* (CLIENT | DATE | TIME | TIMESTAMP | VERSION) , LOCALTIME , LOCALTIMESTAMP
Session	CURRENT_* (ROLE | SESSION | STATEMENT | TRANSACTION | USER) , LAST_QUERY_ID , LAST_TRANSACTION
Session Object	CURRENT_* (DATABASE | SCHEMA | SCHEMAS | WAREHOUSE)

Numeric Functions

Rounding & Truncation	ABS , CEIL , FLOOR , MOD , ROUND , SIGN , TRUNC / TRUNCATE
Exponent & Root	CBRT , EXP , POW / POWER , SQRT , SQUARE
Logarithmic	LN , LOG
Trigonometric	ACOS , ACOSH , ASIN , ASINH , ATAN , ATAN2 , ATANH , COS , COSH , COT , DEGREES , HAVERSINE , PI , RADIANS , SIN , SINH , TAN , TANH

String & Binary Functions

General	ASCII , BIT_LENGTH , CHARINDEX , CHR / CHR , CONCAT / || , CONTAINS , EDITDISTANCE , ENDSWITH , ILIKE , INITCAP , INSERT , LEFT , LENGTH , LIKE , LOWER , LPAD , LTRIM , OCTECT_LENGTH , PARSE_IP , PARSE_URL , POSITION , REPEAT , REPLACE , REVERSE , RIGHT , RPAD , RTRIM , RTRIMMED_LENGTH , SPACE , SPLIT , SPLIT_PART , STARTSWITH , SUBSTR / SUBSTRING , TRANSLATE , TRIM , UPPER, UUID_STRING
Regular Expression Matching; see String Functions (Regular Expressions)	REGEXP , REGEXP_COUNT , REGEXP_INSTR , REGEXP_LIKE , REGEXP_REPLACE , REGEXP_SUBSTR , RLIKE

Category Sub-category   **Functions**

	Expressions)	
	Encode/Decode	BASE64_DECODE_BINARY , BASE64_DECODE_STRING , BASE64_ENCODE , HEX_DECODE_BINARY , HEX_DECODE_STRING , HEX_ENCODE , TRY_* (decode binary and string functions)
	Hash/Crytographic	MD5 / MD5_HEX , MD5_BINARY , SHA1 / SHA1_HEX , SHA1_BINARY , SHA2 / SHA2_HEX , SHA2_BINARY
Date & Time Functions		
	Construction	DATE_FROM_PARTS / DATEFROMPARTS , TIME_FROM_PARTS / TIMEFROMPARTS , TIMESTAMP_FROM_PARTS / TIMESTAMPFROMPARTS
	Extraction	DATE_PART , DAY , DAYNAME , DAYOFMONTH , DAYOFWEEK , DAYOFWEEKISO , DAYOFYEAR , EXTRACT , HOUR , LAST_DAY , MINUTE , MONTH , MONTHNAME , QUARTER , SECOND, WEEK , WEEKOFYEAR , WEEKISO , YEAR , YEAROFWEEK , YEAROFWEEK_ISO
	Addition/Subtraction	ADD_MONTHS , DATEADD, DATEDIFF , TIMEADD, TIMEDIFF , TIMESTAMPADD , TIMESTAMPDIFF
	Truncation	DATE_TRUNC , TRUNC
	Type Conversion	TO_DATE , TO_TIME , TO_TIMESTAMP , TO_TIMESTAMP_* (LTZ | NTZ | TZ)
	Time Zone	CONVERT_TIMEZONE
Semi-structured Data Functions		
	Parsing	ARRAYS_OVERLAP , CHECK_JSON , CHECK_XML , PARSE_JSON , PARSE_XML , STRIP_NULL_VALUE
	Array & Object	ARRAY_AGG , ARRAY_APPEND , ARRAY_CAT , ARRAY_COMPACT , ARRAY_CONSTRUCT , ARRAY_CONSTRUCT_COMPACT , ARRAY_CONTAINS , ARRAY_INSERT , ARRAY_POSITION , ARRAY_PREPEND , ARRAY_SIZE , ARRAY_SLICE , ARRAY_TO_STRING , OBJECT_AGG , OBJECT_CONSTRUCT , OBJECT_INSERT , OBJECT_DELETE
	Data Extraction	FLATTEN , GET , GET_PATH , XMLGET
	Casts	AS_* (all data types) , TO_ARRAY , TO_JSON , TO_OBJECT , TO_VARIANT, TO_XML
Category/Sub-category	**Functions**	
	Type Predicates	IS_* (all data types) , TYPEOF

Conversion Functions	
	CAST , TO_* (all supported Snowflake data types) , TRY_CAST , TRY_TO_* (numeric, Boolean, date & time data types)

Miscellaneous Functions		
	System	SYSTEM$ABORT_SESSION , SYSTEM$ABORT_TRANSACTION , SYSTEM$CANCEL_ALL_QUERIES , SYSTEM$CANCEL_QUERY , SYSTEM$CLUSTERING_DEPTH , SYSTEM$CLUSTERING_INFORMATION , SYSTEM$CLUSTERING_RATIO , SYSTEM$LAST_CHANGE_COMMIT_TIME , SYSTEM$PIPE_STATUS , SYSTEM$TYPEOF , SYSTEM$WAIT
	Utility	GET_DDL , HASH
	Data Generation	RANDOM , SEQ1 / SEQ2 / SEQ4 / SEQ8 , UUID_STRING
	Random Distribution	NORMAL , RANDSTR , UNIFORM , ZIPF

Aggregate Functions∞

Category/Sub-category	Functions
Aggregate Functions	
Utilities	GROUPING , GROUPING_ID
General	ANY_VALUE , AVG , CORR , COUNT , COVAR_POP , COVAR_SAMP , HASH_AGG , LISTAGG , MAX , MEDIAN , MIN , PERCENTILE_CONT , PERCENTILE_DISC , STDDEV / STDDEV_POP , STDDEV_SAMP , SUM , VAR_POP / VARIANCE_POP , VAR_SAMP / VARIANCE_SAMP / VARIANCE
Order-sensitive; see Window Functions	CUME_DIST , DENSE_RANK , FIRST_VALUE , LAG , LAST_VALUE , LEAD , NTH_VALUE , NTILE , PERCENT_RANK , RANK , ROW_NUMBER , WIDTH_BUCKET
Bitwise	BITAND_AGG , BITOR_AGG , BITXOR_AGG
Semi-structured Data	ARRAY_AGG , OBJECT_AGG
Linear Regression	REGR_AVGX , REGR_AVGY , REGR_COUNT , REGR_INTERCEPT , REGR_R2 , REGR_SLOPE , REGR_SXX , REGR_SXY , REGR_SYY
Cardinality Estimation	APPROX_COUNT_DISTINCT , HLL , HLL_ACCUMULATE , HLL_COMBINE , HLL_ESTIMATE , HLL_EXPORT , HLL_IMPORT
Similarity Estimation	APPROXIMATE_JACCARD_INDEX , APPROXIMATE_SIMILARITY , MINHASH , MINHASH_COMBINE
Frequency Estimation	APPROX_TOP_K , APPROX_TOP_K_ACCUMULATE , APPROX_TOP_K_COMBINE , APPROX_TOP_K_ESTIMATE
Percentile Estimation	APPROX_PERCENTILE , APPROX_PERCENTILE_ACCUMULATE , APPROX_PERCENTILE_COMBINE , APPROX_PERCENTILE_ESTIMATE

Table Functions🔗

Category/Sub-category	Functions
General	
Data Loading	VALIDATE
Data Generation	GENERATOR
Semi-structured Queries	FLATTEN
Query Results	RESULT_SCAN
Historical & Usage Information (Information Schema)	
Queries	QUERY_HISTORY , QUERY_HISTORY_BY_* (SESSION | USER | WAREHOUSE)
Warehouse & Storage Usage	DATABASE_STORAGE_USAGE_HISTORY , STAGE_STORAGE_USAGE_HISTORY , WAREHOUSE_METERING_HISTORY
Data Loading & Transfer	COPY_HISTORY , DATA_TRANSFER_HISTORY , PIPE_USAGE_HISTORY
User Login	LOGIN_HISTORY , LOGIN_HISTORY_BY_USER

User-defined Functions (UDFs) &

In addition to the system-defined functions provided by Snowflake, users can create functions. Snowflake supports two types of UDFs:

Type	Notes
SQL	
	SQL UDFs can be defined to return either scalar or tablular output.
JavaScript	
	JavaScript UDFs can be defined to return either scalar or tablular output.

PREVIOUS | NEXT