SQL String and Numeric functions

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1. ASCII(): This function is used to find the ASCII value of a character.

Syntax: SELECT ascii('t');

1. CHAR\_LENGTH(): Doesn’t work for SQL Server. Use LEN() for SQL Server. This function is used to find the length of a word.

Syntax: SELECT char\_length('Hello!');

3)CHARACTER\_LENGTH(): Doesn’t work for SQL Server. Use LEN() for SQL Server. This function is used to find the length of a line.

Syntax: SELECT CHARACTER\_LENGTH('geeks for geeks');

4)CONCAT(): This function is used to add two words or strings.

Syntax: SELECT 'Geeks' || ' ' || 'forGeeks' FROM dual;

5)CONCAT\_WS(): This function is used to add two words or strings with a symbol as concatenating symbol.

Syntax: SELECT CONCAT\_WS('\_', 'geeks', 'for', 'geeks');

6)FIND\_IN\_SET(): This function is used to find a symbol from a set of symbols.

Syntax: SELECT FIND\_IN\_SET('b', 'a, b, c, d, e, f');

7)FORMAT(): This function is used to display a number in the given format.

Syntax: Format("0.981", "Percent");

8)INSERT(): This function is used to insert the data into a database.

Syntax: INSERT INTO database (geek\_id, geek\_name) VALUES (5000, 'abc');

9)INSTR(): This function is used to find the occurrence of an alphabet.

Syntax: INSTR('geeks for geeks', 'e');

10)LCASE(): This function is used to convert the given string into lower case.

Syntax: LCASE ("GeeksFor Geeks To Learn");

Venkatesh Devale:

LEFT(): This function is used to SELECT a sub string from the left of given size or characters. Select left(‘happy afternoon’,5);

LENGTH(): This function is used to find the length of a word select length(‘happy morning’)

LOCATE(): This function is used to find the nth position of the given word in a string. Select locate(‘noon’,’afternoon’);

LOWER(): This function is used to convert the upper case string into lower case. Select lower(‘ABCDE’)

LPAD(): This function is used to make the given string left of the given size by adding the given symbol. Select lpad(‘abcd’,8,’$’);

TRIM(): This function is used to cut the given sub string from the original string.

Select trim(‘after noon’,’good afternoon’)

MID(): This function is to find a word from the given position and of the given size.

Select mid(‘good afternoon’,6 ,4);

POSITION(): This function is used to find position of the first occurrence of the given alphabet.

Select position(‘o’ in ‘good afternoon’);

REPEAT(): This function is used to write the given string again and again till the number of times mentioned. Select repeat(‘happy’,5);

REPLACE(): This function is used to cut the given string by removing the given sub string.

Select replace(‘good afternoon’,’afternoon’,’morning’)

Vigneshwar

Reverse()- Reverse the string

select Last\_name,reverse(Last\_name) Reversed\_name from employees

Right()- Select the string right to left

select Last\_name,right(Last\_name,1) letters from employees

left()- Select the string left to right

select Last\_name,left(Last\_name,1) letters from employees

strcmp()- compare the values between two

if a=b; 0

a>b; 1

a<b;-1

select strcmp(max(salary),min(salary)) from employees

substr()

select last\_name,ucase(substr(last\_name,1,4) from employees where department\_id=50

ltrim()- removes the unwanted space in the left side

select ltrim(' suresh raina ')

rtrim()- removes the unwanted space in the right side

select rtrim(' suresh raina ')

Numeric Functions

Numeric Functions are used to perform operations on numbers and return numbers.

Following are the numeric functions defined in SQL:

ABS(): It returns the absolute value of a number.

Syntax: SELECT ABS(-243.5);

Output: 243.5

SQL> SELECT ABS(-10);

+--------------------------------------+

| ABS(10)

+--------------------------------------+

| 10

+--------------------------------------+

ACOS(): It returns the cosine of a number.

Syntax: SELECT ACOS(0.25);

Output: 1.318116071652818

ASIN(): It returns the arc sine of a number.

Syntax: SELECT ASIN(0.25);

Output: 0.25268025514207865

ATAN(): It returns the arc tangent of a number.

Syntax: SELECT ATAN(2.5);

Output: 1.1902899496825317

CEIL(): It returns the smallest integer value that is greater than or equal to a number.

Syntax: SELECT CEIL(25.75);

Output: 26

CEILING(): It returns the smallest integer value that is greater than or equal to a number.

Syntax: SELECT CEILING(25.75);

Output: 26

COS(): It returns the cosine of a number.

Syntax: SELECT COS(30);

Output: 0.15425144988758405

COT(): It returns the cotangent of a number.

Syntax: SELECT COT(6);

Output: -3.436353004180128

DEGREES(): It converts a radian value into degrees.

Syntax: SELECT DEGREES(1.5);

Output: 85.94366926962348

SQL>SELECT DEGREES(PI());

+------------------------------------------+

| DEGREES(PI())

+------------------------------------------+

| 180.000000

+------------------------------------------+

DIV(): It is used for integer division.

Syntax: SELECT 10 DIV 5;

Output: 2

EXP(): It returns e raised to the power of number.

Syntax: SELECT EXP(1);

Output: 2.718281828459045

FLOOR(): It returns the largest integer value that is less than or equal to a number.

Syntax: SELECT FLOOR(25.75);

Output: 25

GREATEST(): It returns the greatest value in a list of expressions.

Syntax: SELECT GREATEST(30, 2, 36, 81, 125);

Output: 125

LEAST(): It returns the smallest value in a list of expressions.

Syntax: SELECT LEAST(30, 2, 36, 81, 125);

Output: 2

LN(): It returns the natural logarithm of a number.

Syntax: SELECT LN(2);

Output: 0.6931471805599453

LOG10(): It returns the base-10 logarithm of a number.

Syntax: SELECT LOG(2);

Output: 0.6931471805599453

LOG2(): It returns the base-2 logarithm of a number.

Syntax: SELECT LOG2(6);

Output: 2.584962500721156

MOD(): It returns the remainder of n divided by m.

Syntax: SELECT MOD(18, 4);

Output: 2

PI(): It returns the value of PI displayed with 6 decimal places.

Syntax: SELECT PI();

Output: 3.141593

POW(): It returns m raised to the nth power.

Syntax: SELECT POW(4, 2);

Output: 16

RADIANS(): It converts a value in degrees to radians.

Syntax: SELECT RADIANS(180);

Output: 3.141592653589793

RAND(): It returns a random number.

Syntax: SELECT RAND();

Output: 0.33623238684258644

ROUND(): It returns a number rounded to a certain number of decimal places.

Syntax: SELECT ROUND(5.553);

Output: 6

SIGN(): It returns a value indicating the sign of a number.

Syntax: SELECT SIGN(255.5);

Output: 1

SIN(): It returns the sine of a number.

Syntax: SELECT SIN(2);

Output: 0.9092974268256817

SQRT(): It returns the square root of a number.

Syntax: SELECT SQRT(25);

Output: 5

TAN(): It returns the tangent of a number.

Syntax: SELECT TAN(1.75);

Output: -5.52037992250933

ATAN2(): It returns the arctangent of the x and y coordinates, as an angle and expressed in radians.

Syntax: SELECT ATAN2(7);

Output: 1.42889927219073

TRUNCATE(): This doesn’t work for SQL Server. It returns 7.53635 truncated to 2 places right of the decimal point.

Syntax: SELECT TRUNCATE(7.53635, 2);

Output: 7.53