

MySQL Functions

Date _____



Definition of Function

→ A function is a special type of Pre determined defined command set that perform some operation & return a value.

CHAR()

Syntax → CHAR (value1, value2...)

Types of Fn

def

Single row function → work on each individual row & return result for each row.
Multiple rows function → work on multiple rows together & return a summary report for a group of rows.

① CHAR()

Syntax CHAR (value1, Value2...)

def - This function returns the character for each int passed.

[No. at ASCII value → return char]

Eg → Select CHAR(66); → B 'B' = char 66 has



Upper()

Linear

② Upper() / Ucase()

Def - This function convert the given string into upper case

Eg - $\rightarrow \text{Select Upper('Large')};$
 $\rightarrow \text{LARGE}$

③ Lower() / Lcase()

Def - This function convert a string into lower case

Eg - $\rightarrow \text{Select Lower('APNA NAAM')};$
 $\rightarrow \text{apna naam}$

④ Substr

⑤ SUBSTR()

startpos endpos

Syntax

SUBSTR(str, m, n) without return of result

Eg \rightarrow Select substr('ABCDEF,GHI', 3, 5) \rightarrow CDEFG

This function extract a substring from a string. It return the portion of str, beginning @ char 'm', 'n' char long.

\rightarrow 3 at start, 3 at 4 index i.e. $(3+4)$ total

\rightarrow If 'm' value exceed the limit it's empty space



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a) Display 4 character extracted from 3rd left character from the string 'ABCDEFY'

→ Select SUBSTR ('ABCDEFY', 3, 4); → CDEF

a) 4 from 5th right onward

→ Select substr ('ABCDEFY', -5, 4); → CDEF

5) LTRIM()

Def This function Remove leading ^{space} from left of the given string.

e.g. → select LTRIM ('RDBMS');
→ RDBMS

6) RTRIM()

Def This fn Remove the trailing spaces from the right of the given string.

e.g. select RTRIM ('Hello');

7) Trim()

This fn remove both leading & trailing spaces from a given string.

instr() → store non-existent str → return 0



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8) INSTR()

(Case sensitive)

↳ ASCII value compare

Syntax: INSTR(str1, str2).

str2 → str to search

position
Starting loc → return instr

Eg. → Select INSTR('ABCDEFg', 'CD'); → 3
→ ('ABeDEFg CD', 'CD'); → 3

def → This fn search for given 2nd string in 1st string

P/Q) Display the position of occurrence of string 'OR' in the string ← 'CORPORATE FLOOR' → 2

→ Select INSTR('CORPORATE FLOOR', 'OR'); → 2

9) Length()

def → This function return the length of a given string

Q) How many character are there in the string 'CANDIDE'.

→ Select LENGTH('CANDIDE'); → 7

→ empty space count

(left) and Right() फ़ंक्शन length से ज्यादा Number होने पर
Right side empty space बनेगा।



(8) Left()

Syntax Left (str, len)

→ left फ़ंक्शन char को extract करता है।

def → It return the left most no of char as specified

a) Write a SQL query to extract ~~institute~~ institute code from a string 'USS/23/67/09'.

The 1st 3 character tell the institute code

→ Select Left ('USS/23/67/09', 3); → USS

a) Right()

def → This fn return the right most no of char as specified
syntax → RIGHT (str, len)

a) Write SQL cmd to extract 2 digit year from a string 'USS/23/67/09'

The last two char tell the year

→ Select Right ('USS/23/67/09', 2); → 09

* 12) MID()

Syntax → MID (str, pos, len)

def → This function return a substring starting from the specified position having no. of character 'len'.

MID() & SUBSTR() \rightarrow SAME



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Q) Write a SQL cmd to extract a substring from the string 'Quadratically' which should be 6 character long and should start from the 5th character of the given string.

$\rightarrow \rightarrow$ Select MID('Quadratically', 5, 6); \rightarrow radica

② NUMERIC FUNCTIONS

① MOD()

Syntax \rightarrow MOD(m, n)

\rightarrow find remainder

Def \rightarrow This fn returns remainder of 2 numbers

Q) Write sql cmd to find out remainder of 11/4

\rightarrow Select MOD(11, 4);

② Power()

Def \rightarrow This fn return m^n ('m' to the power 'n')

Q) Write sql cmd to display result of 3^2

\rightarrow Select POWER(3, 2);



3) Round()

Syntax → Round(float/number, n) → Round(n, m)

Def → This fn return a number round off as per given specification.
This return value of args 'n' round off to 'm' places right of the decimal point.

- Q) Write SQL cmd to round off values 15.193 to 1 decimal place
→ Select Round (15.193, 1); → 15.2

4) Sign()

Def → Return sign of a given number

Syntax, Sign (m)

↳ if $m < 0$:

return -1

if $m = 0$

return 0

if $m > 0$

return 1

- Q) Write SQL cmd to find out the sign of the value -15

→ Select sign (-15);



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5) SQRT()

syntax

def → Return square root of a number | ~~SQRT~~ SQRT(n)

a) Write SQL cmd to find out sqrt of 26.

→ Select SQRT(26);

6) TRUNCATE()

Syntax Truncate(m,n)

def This function return value of 'arg' in truncated to 'n' decimal places.

a) Write SQL cmd to truncate the value ~~3.79~~ to 1 decimal place,
 → Select TRUNCATE(3.79, 1); → 3.7
~~-10~~; → 0
~~10~~; → ~~3.7900000000~~

Date / Time function

→ Data should be Date type

① CURDATE()

def Return current date as 'YYYY-MM-DD'

a) Write a cmd to display current date on system

→ Select CURDATE();



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④ Date()

Def - This fn extract date part of a date time expression
Syntax - Date (date time exp)

- a) Write a cmd to extract date from a given date time value
2024-20-06 08:10:20

→ Select Date ('2024-20-06 08:10:20'); → 2024-20-06

⑤ Month()

Syntax Month (Date)

- a) Write a SQL cmd to extract month part from date 20 Jun 2024.

→ Select Month (2024-06-20); → 06

Month Name

⑥ MonthName()

Syntax Monthname (Date)

Eg → Select monthname ('2024-06-20'); → June

⑦ Day()

Def - This function return the day part of the date
Syntax → Day (Date)

- a) Write SQL cmd to display day from 13 Apr 2024.
→ Select Day ('2024-04-13'); → 13



(vi) Year()

def → return year part of the date
syntax → Year (Date)

- Q) Write a query to extract year part from 20 June 2024
→ Select Year ('2024-06-20'); → 2024

(vii) Dayname()

Syntax Dayname (date)

def This function returns name of the week day

- Q) Write a query to display the name of week day for 20 June 2024
→ Select Dayname ('2024-06-20'); → Thursday

(viii) Dayofmonth()

def - It is return day of the month.

Syntax Dayofmonth (Date)

- Q) Write a query to display day of the month 20 June 2024
→ Select Dayofmonth ('2024-06-20') → 20

(ix) Dayoftheweek()

def - It return day of the week [1 - sunday, 2 - monday ----]

Syntax Dayofweek (Date)

- Q) Show for 20 June 2024

→ Select Dayofweek ('2024-06-20'); → 3:

Sleep() → Delay टॉप्टी
seconds
Date / /



(x) Day of Year()

→ Day of Year (130 - Feb - 2009) → 41

→ साल 2009 में कितने दिन विता हैं?

(xi) Now()

def return current date & time

Synday Select Now();

eg → 2024-06-20 09:05:10 < output

(xii) Sysdate()

> Select Now(), Sleep(5), Now();

→ 2024-06-20 09:05:10 2024-06-20 09:05:10

> Select Sysdate(), Sleep(5), sysdate();

→ 2024-06-20 09:05:10 2024-06-20 09:05:10