EXPERIMENT – 6

AIM: Examples on Functions in MySQL. String , Numeric , Date , Time and Other Functions.

MYSQL String Functions:

1 . CONCAT : Adds two or more expressions together

    Syntax : CONCAT (expression1,expression2,….)

    Example :

            select concat(fname,' ',lname) as employeename from employee_91;

    Output :

employeename
▶ Franklin Wong
Joyce English
Ramesh Narayan
James Bong
Jennifer Wallace
Ahmad Jabbar
Alicia Zelaya

2 . INSERT: Inserts a string within a string at the specified position and   for certain number of characters

    Syntax: INSERT (string , position , number , string2)

    Example :

            select insert(fname,3,2,'it') as employeename from employee_91;

    Output :

employeename
▶ Fritklin
Joite
Raitsh
Jaits
Jeitifer
Ahitd
Alitia

3. INSTR : Returns the position of the first occurrence of a string in another string

    Syntax :

               INSTR(string1 , string2)

Example:

        select instr(fname,'a') as firstoccurenceofa from employee_91;

Output :

firstoccurenceofa
3
0
2
2
0
1
1

4. LCASE/LOWER :   Converts a string to lower-case

Syntax : LCASE(text) / LOWER(text)

Example :

        select lower(fname) as lower from employee_91;

Output :

lower
franklin
joyce
ramesh
james
jennifer
ahmad
alicia

5 . LENGTH : Returns the length of a string (in bytes)

Syntax : LENGTH(text)

Example :

        select length(lname) as length from employee_91;

Output :

length
4
7
7
4
7
6
6

6. LPAD : Left-pads a string with another string, to a certain length

Syntax : LPAD(String , length , Lpad_string)

Example :

> select lpad(fname,7,'*') as lpad from employee_91;

Output:

	lpad
▶	Frankli
	**Joyce
	*Ramesh
	**James
	Jennife
	**Ahmad
	*Alicia

7. RPAD : Right-pads a string with another string, to a certain length

Syntax : RPAD(String , length , Rpad_string)

Example :

> select rpad(lname,8,'h') as rpad from employee_91;

Output :

	rpad
▶	Wonghhhh
	Englishh
	Narayanh
	Bonghhhh
	Wallaceh
	Jabbarhh
	Zelayahh

8. LTRIM : Removes leading spaces from a string

Syntax : LTRIM(text)

Example :

> select ltrim(lname) as ltrim from employee_91;

Output :

	ltrim
▶	Wong
	English
	Narayan
	Bong
	Wallace
	Jabbar
	Zelaya

9. REVERSE : Reverses a string and returns the result

Syntax : REVERSE(text)

Example :

select reverse(lname) as reverselname from employee_91;

Output :

	reverselname
▶	gnoW
	hsilgnE
	nayaraN
	gnoB
	ecallaW
	rabbaJ
	ayaleZ

10 . STRCMP : Compares two strings (returns 0 if s1=s2,1 if s1>s2 , -1 if s1<s2)

Syntax : STRCMP (string 1, string 2)

Example :

select strcmp(fname,lname) as strcmp from employee_91;

Output :

	strcmp
▶	-1
	1
	1
	1
	-1
	-1
	-1

11 . TRIM : Removes leading and trailing spaces from a string

Syntax : TRIM(string)

Example :

select trim(address) as trim from employee_91;

Output :

	trim
▶	638 Voss,Houston,TX
	5631 Rice,Houston,TX
	975 Fire Oak,Humble,TX
	450 Stone,Houston,TX
	291 Berry,Bellaire,TX
	980 Dallas,Houston,TX
	3321 Castle,Spring,TX

12. UCASE/ UPPER : Converts a string to upper-case

   Syntax : UPPER(text) / UCASE(text)

   Example :

   select upper(fname) as upper from employee_91;

   Output :

	upper
▶	FRANKLIN
	JOYCE
	RAMESH
	JAMES
	JENNIFER
	AHMAD
	ALICIA

13 . SUBSTRING : Return a substring from string str starting at position pos

   Syntax : SUBSTRING (string , start)

   Example :

   select substring(fname,2,4) as substring from employee_91;

   Output :

	substring
▶	rank
	oyce
	ames
	ames
	enni
	hmad
	lici

MYSQL Date and Time Functions:

14. CURDATE/ CURRENT_DATE : Returns the current date as a value in

                                    'YYYY-MM-DD' format

Syntax : CURDATE() / CURRENT_DATE()

Example :

       select curdate();

Output :

curdate()
2020-12-14

15 . CURTIME :   Returns the current time as a value in 'HH:MM:SS format

    Syntax : CURTIME()

     Example:

       select curtime();

     Output :

curtime()
19:17:29

16 . DAY/ DAYOFMONTH : Returns the day of the month for a given date

     Syntax : DAY(Date) / DAYOFMONTH(Date)

  Example :

      select day('2000-11-13');

  Output :

day('2000-11-13')
13

17. DAYOFWEEK : Returns the weekday index for a given date (1 = Sunday, 2

               = Monday, ., 7 = Saturday).

  Syntax : DAYOFWEEK(Date)

  Example :

      select dayofweek('2000-11-13');

Output :

dayofweek('2000-11-13')
2

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18. **DAYOFYEAR** : Returns the day of the year for a given date, in the range 1

to 366.

Syntax : DAYOFYEAR(Date)

Example:

select dayofyear('2000-11-13');

Output :

dayofyear('2000-11-13')
▶ 318

19 . **DATE_FORMAT** :   Formats the date value according to the format string.

The following specifiers may be used in the format string. The .%. character is required before format specifier characters.

%a   Abbreviated weekday name (Sun..Sat)

%b   Abbreviated month name (Jan..Dec)

%c   Month, numeric (0..12)

%D   Day of the month with English suffix (0th, 1st, 2nd, 3rd, .)

%d   Day of the month, numeric (00..31)

%j   Day of year (001..366)

%M   Month name (January..December)

%m   Month, numeric (00..12)

%W   Weekday name (Sunday..Saturday)

%w   Day of the week (0 = Sunday..6 = Saturday)

Syntax : DATE_FORMAT(date, format)

More Functions :

HOUR   Returns the hour part for a given date

MONTH   Returns the month part for a given date

MONTHNAME   Returns the name of the month for a given date

WEEK   Returns the week number for a given date

WEEKDAY   Returns the weekday number for a given date

WEEKOFYEAR	Returns the week number for a given date
YEAR	Returns the year part for a given date
YEARWEEK	Returns the year and week number for a given date

Syntax: func_name (date/time) ;

MYSQL Numeric Functions:

20. GREATEST(x1,x2,….,xn): Returns the largest value in a number set.

   Syntax: GREATEST(arg1, arg2, arg3, ...)

   Example:

               select greatest(11,21,13);

   Output :

	greatest(11,21,13)
▶	21

21. LEAST(X1,X2,…,Xn) : Returns the smallest value in a number set.

         Syntax: LEAST(arg1, arg2, arg3, ...)

      Example :

               select least(11,21,13);

      Output :

	least(11,21,13)
▶	11

22. FLOOR(x) : Returns the closest integer value less than x

   Syntax : FLOOR(number)

    Example :

           select floor(5.01);

   Output :

	floor(5.01)
▶	5

23.CEILING(X):Returns the closest integer value greater than x.

Syntax: CEIL(number)

Example :

select ceil(5.01);

Output :

ceil(5.01)
▶ 6

24. ROUND(X,Y) : Returns x rounded off to the closest integer, with y decimal places.

Syntax: ROUND*(number, decimals)*

Example :

select round(9.3245, 3);

Output :

round(9.3245, 3)
▶ 9.325

25.TRUNCATE(X,Y): Returns the result of truncating x to y decimal places

Syntax: TRUNCATE(number*, decimals)*

Example :

select TRUNCATE(6.7777, 2);

Output :

TRUNCATE(6.7777, 2)
▶ 6.77

26.ABS(X): Returns the absolute value of the x
Syntax: ABS(number)

Example :

select abs(-13);

Output :

abs(-13)
▶ 13

27. SQRT(X): Returns square root of the x.
   Syntax: SQRT(number);

   Example :

               select sqrt(100);

   Output :

	sqrt(100)
▶	10

28 . POW(X,Y): Returns x power y.

   Syntax: POW(x, *y*);

   Example :

           select pow(3,8);

   Output :

	pow(3,8)
▶	6561

29. EXP(X): Returns the e power x.

   Syntax: EXP(number);

   Example :

               select exp(2);

   Output :

	exp(2)
▶	7.38905609893065

30. MOD(X,Y): Returns the modulo(Remainder) of x/y.
   Syntax : MOD(x, y)

   Example :
               select mod(10,9);

   Output :

	mod(10,9)
▶	1