CREATE TABLE employees (

lastName VARCHAR(50),

firstName VARCHAR(50)

);

INSERT INTO employees (lastName, firstName)

VALUES

('Murphy', 'Diane'),

('Patterson', 'Mary'),

('Firrelli', 'Jeff'),

('Patterson', 'William'),

('Bow', 'Anthony'),

('Jennings', 'Leslie'),

('Thompson', 'Leslie'),

('Firrelli', 'Julie'),

('Patterson', 'Steve'),

('Tseng', 'Foon Yue'),

('Vanauf', 'George'),

('Bondur', 'Loui'),

('Hernandez', 'Gerard'),

('Castillo', 'Pamela'),

('Bott', 'Larry'),

('Jones', 'Barry'),

('Fixter', 'Andy'),

('Marsh', 'Peter'),

('King', 'Tom'),

('Nishi', 'Mami'),

('Kato', 'Yoshimi'),

('Gerard', 'Martin');

CREATE TABLE payments (

paymentDate DATETIME

);

INSERT INTO payments (paymentDate)

VALUES

('2004-10-19 00:00:00'),

('2003-06-05 00:00:00'),

('2004-12-18 00:00:00'),

('2004-12-17 00:00:00'),

('2003-06-06 00:00:00'),

('2004-08-20 00:00:00'),

('2003-05-20 00:00:00'),

('2004-12-15 00:00:00'),

('2003-05-31 00:00:00'),

('2004-03-10 00:00:00'),

('2004-11-14 00:00:00'),

('2004-08-08 00:00:00'),

('2005-02-22 00:00:00'),

('2003-02-16 00:00:00')

);

use company;

select firstname, lower(firstname) as loname, upper(firstname) as upname from employees;

select concat(firstname, ' ', lastname) as fullname from employees;

select firstname from employees limit 5;

select firstname, substr(firstname,1,3) as sb from employees limit 5;

select length(firstname) from employees;

select length('hello') as new;

select length(trim(' hello ')) as new2;

select \* from employees where firstname like 'A%';

select lastname, replace(lastname, 'Murphy', 'abcdex') as new from employees;

select firstname, substr(firstname,1 ,3) as sb from employees limit 5;

-- fetch last char of any string

select firstname,

substring(firstname, length(firstname),1) from employees;

-- datetime

select now(); -- timestamp

select current\_date(); -- only date

select current\_date,

year(current\_date) as yt,

month(current\_date) as ym,

day(current\_date) as yd;

select date("2023-06-13") as new;

select datediff(current\_date, "2022-01-01") as new2;

select current\_date;

select date\_format(date(paymentDate),"%D:%m:%Y")

as new from payments;

select date(paymentDate) as t1,

date\_add(date(paymentDate), INTERVAL -2 DAY) as t2

from payments;

select date(paymentDate) as t1,

date\_add(date(paymentDate), INTERVAL -2 MONTH) as t2

from payments;

select \* from employees;

## Text Functions :

SQL provides a wide range of text functions that can be used to manipulate and extract information from text data stored in database tables. Some of the most commonly used text functions in SQL include:

1. **CONCAT()**: This function is used to concatenate two or more strings together. It takes two or more string arguments and returns a single string that is the result of concatenating the input strings. For example:

SELECT CONCAT(first\_name, ' ', last\_name) AS full\_name FROM employees;

This query concatenates the "first\_name" and "last\_name" columns in the "employees" table, separated by a space, and returns the result as a new column named "full\_name".

1. **SUBSTR()**: This function is used to extract a substring from a larger string. It takes three arguments: the input string, the starting position of the substring, and the length of the substring. For example:

SELECT SUBSTR(title, 1, 3) AS abbreviation FROM books;

This query extracts the first three characters of the "title" column in the "books" table, and returns the result as a new column named "abbreviation".

1. **LOWER()** and **UPPER()**: These functions are used to convert text to lowercase or uppercase, respectively. They take a single string argument and return the result as a new string. For example:

**SELECT LOWER(last\_name) AS lower\_case\_last\_name, UPPER(first\_name) AS**

**upper\_case\_first\_name FROM employees;**

This query converts the "last\_name" column to lowercase and the "first\_name" column to uppercase, and returns the results as new columns named "lower\_case\_last\_name" and "upper\_case\_first\_name".

1. **LENGTH()**: This function is used to get the length of a string. It takes a single string argument and returns the length of the string as an integer. For example:

**SELECT LENGTH(email) AS email\_length FROM customers;**

This query returns the length of the "email" column in the "customers" table as a new column named "email\_length".

These are just a few examples of the many text functions available in SQL. Other commonly used text functions include **TRIM()**, **REPLACE()**, **LIKE**, and **REGEXP**. These functions can be used in combination with other SQL queries to perform complex text manipulations and extractions.

1. **TRIM()**: This function is used to remove leading or trailing whitespace from a string. It takes a single string argument and returns the result with whitespace removed. For example:

**SELECT TRIM(' hello world ') AS trimmed\_string;**

This query returns "hello world" as the result, with leading and trailing whitespace removed.

1. **REPLACE()**: This function is used to replace a substring in a larger string with another substring. It takes three arguments: the input string, the substring to replace, and the replacement substring. For example:

**SELECT REPLACE(title, 'the', 'a') AS new\_title FROM books;**

This query replaces any occurrence of the substring "the" in the "title" column with the substring "a", and returns the result as a new column named "new\_title".

1. **LIKE**: This operator is used to match a pattern in a string. It is commonly used with wildcard characters like "%" (matches zero or more characters) and "\_" (matches a single character). For example:

**SELECT first\_name FROM employees WHERE first\_name LIKE 'J%';**

This query returns all rows from the "employees" table where the "first\_name" column starts with the letter "J".

## Date Function :

1. **DATE**: This function is used to convert a string or number to a date data type. For example:

***SELECT DATE('2022-04-28') AS date\_result;***

This query converts the string '2022-04-28' to a date data type and returns the result.

1. **YEAR**, **MONTH**, and **DAY**: These functions are used to extract the year, month, and day from a date value, respectively. For example:

***SELECT YEAR('2022-04-28') AS year\_result, MONTH('2022-04-28') AS month\_result, DAY('2022-04-28') AS day\_result;***

This query extracts the year, month, and day from the date value '2022-04-28' and returns the results.

1. **DATEDIFF**: This function is used to calculate the difference between two dates in a specified unit (such as days, months, or years). However, the name and syntax of this function may vary depending on the database system. For example, in MySQL:

***SELECT DATEDIFF('2022-05-01', '2022-04-28') AS days\_diff\_result;***

This query calculates the difference in days between the dates '2022-04-28' and '2022-05-01' and returns the result.

1. **CURRENT\_DATE** : These functions are used to get the current date from the database server. However, the name and syntax of these functions may vary depending on the database system

***SELECT CURRENT\_DATE AS current\_date\_result;***

1. Date\_ADD() : <https://www.w3schools.com/sql/func_mysql_date_add.asp>

***SELECT DATE\_ADD("2017-06-15", INTERVAL -2 DAY);***