Extracting data using patterns

Note: In sample code, change the table name and attributes according to your code.

SQL LIKE Operator

The LIKE operator is used in a WHERE clause to search for a specified pattern in a column. There are two wildcards often used in conjunction with the LIKE operator: • The percent sign % represents zero, one, or multiple characters • The underscore sign _ represents one, single character
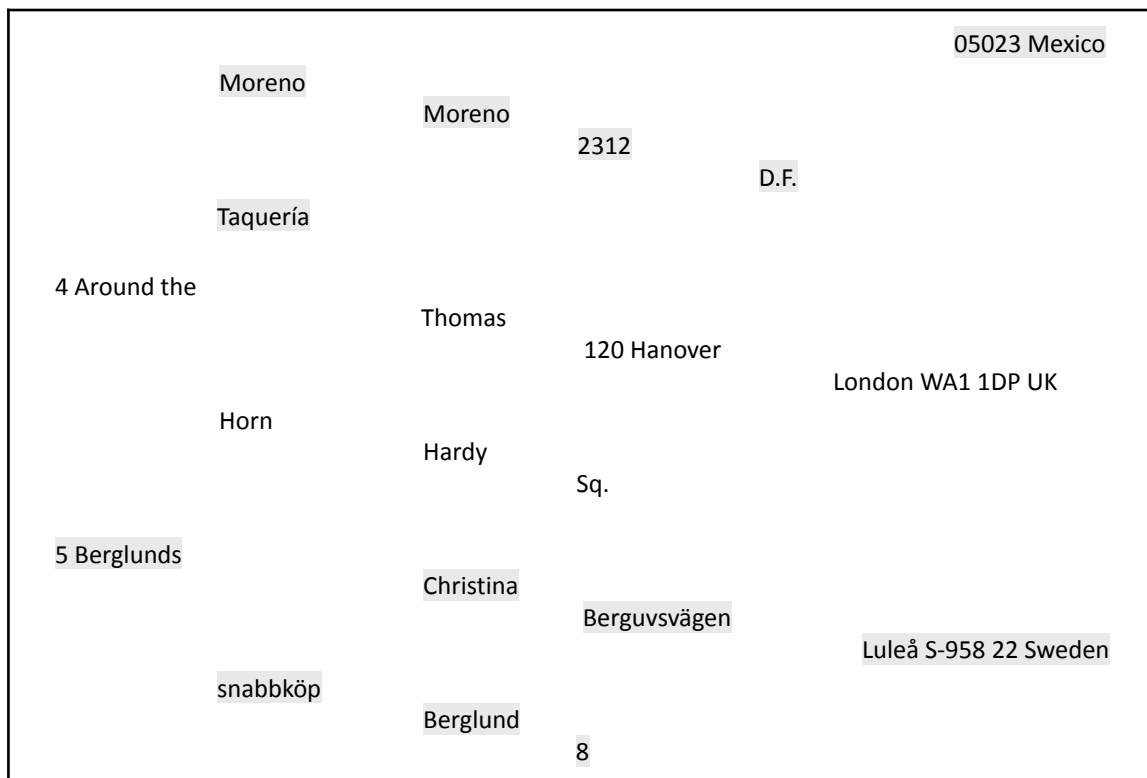
Example

Select all customers that starts with the letter "a":

SELECT * FROM Customers
WHERE CustomerName LIKE 'a%';

Demo Database

CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country
1	Alfreds Futterkiste	Maria Anders	Obere Str. 57	Berlin	12209	Germany
2	Ana Trujillo Emparedados y helados	Ana Trujillo	Avda. de la Constitución 2222	México D.F.	05021	Mexico
3	Antonio	Antonio	Mataderos	México		

```
                                                              05023 Mexico
                    Moreno
                              Moreno
                                        2312
                                                  D.F.
                    Taquería

4 Around the

                              Thomas
                                        120 Hanover
                                                  London WA1 1DP UK
          Horn
                              Hardy
                                        Sq.

5 Berglunds
                              Christina
                                        Berguvsvägen
                                                  Luleå S-958 22 Sweden
          snabbköp
                              Berglund
                                        8
```

The _ wildcard represents a single character.

It can be any character or number, but each _ represents one, and only one, character.

Example

Return all customers from a city that starts with 'L' followed by one wildcard character, then 'nd' and then two wildcard characters:

SELECT * FROM Customers
WHERE city LIKE 'L_nd__';

The % Wildcard

The % wildcard represents any number of characters, even zero characters.

Example

Return all customers from a city that *contains* the letter 'L':

SELECT * FROM Customers
WHERE city LIKE '%L%';

Starts With

To return records that starts with a specific letter or phrase, add the % at the end of the letter or phrase.

Return all customers that starts with 'La':

SELECT * FROM Customers

WHERE CustomerName LIKE 'La%';

Tip: You can also combine any number of conditions using AND or OR operators.

Return all customers that starts with 'a' or starts with 'b':

SELECT * FROM Customers

WHERE CustomerName LIKE 'a%' OR CustomerName LIKE 'b%';

Ends With

To return records that ends with a specific letter or phrase, add the % at the beginning of the letter or phrase.

Example

Return all customers that ends with 'a':

SELECT * FROM Customers

WHERE CustomerName LIKE '%a';

Tip: You can also combine "starts with" and "ends with":

Example

Return all customers that starts with "b" and ends with "s":

SELECT * FROM Customers

WHERE CustomerName LIKE 'b%s';

Contains

To return records that contains a specific letter or phrase, add the % both before and after the letter or phrase.

Example

Return all customers that contains the phrase 'or'

SELECT * FROM Customers

WHERE CustomerName LIKE '%or%';

Combine Wildcards

Any wildcard, like % and _ , can be used in combination with other wildcards.

Example

Return all customers that starts with "a" and are at least 3 characters in

length: SELECT * FROM Customers

WHERE CustomerName LIKE 'a__%';

Example

Return all customers that have "r" in the second position:

SELECT * FROM Customers

WHERE CustomerName LIKE '_r%';

Without Wildcard

If no wildcard is specified, the phrase has to have an exact match to return a result.

Example

Return all customers from Spain:

SELECT * FROM Customers

WHERE Country LIKE 'Spain';