Name-Harshit Selarka Prn-23070521131 Class-Section B Batch- B2

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%';

CustomerID Cu	ustomerName	ContactName	'	City	PostalCode	Country
	round the Horn	Thomas Hardy	120 Hanover Sq.	London	WA1 1DP	UK

Demo Database

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

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__';

CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country
1 4	Alfreds Futterkiste Around the Horn Berglunds snabbköp	Maria Anders Thomas Hardy	Obere Str. 57 120 Hanover Sq.	Berlin London	12209 WA1 1DP	Germany UK Sweden

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%';

CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country
1 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 Moreno Taquería	Antonio Moreno	Mataderos 2312	México D.F.	05023	Mexico
4	Around the Horn	Thomas Hardy	120 Hanover Sq.	London	WA1 1DP	UK
5	Berglunds snabbköp	Christina Berglund	Berguvsvägen 8	Luleå	S-958 22	Sweden

Starts With

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

Example

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.

Example

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

SELECT * FROM Customers

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

CustomerID	CustomerName	ContactName	Address	+ City	PostalCode	Country
] 3	Antonio Moreno Taquería	Antonio Moreno	Mataderos 2312	México D.F.	05023	Mexico

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';

CustomerID CustomerName	ContactName Address	City	PostalCode	Country
4 Around the Horn	Thomas Hardy 120 Hanover Sq.	London	WA1 1DP	UK [

Custo	merID	CustomerName	ContactName	Address	City	PostalCode	Country
+ 	1	Alfreds Futterkiste	+ Maria Anders	+ Obere Str. 57	Berlin	12209	Germany
	4	Around the Horn	Thomas Hardy	120 Hanover Sq.	London	WA1 1DP	UK
I	5	Berglunds snabbköp	Christina Berglund	Berguvsvägen 8	Luleå	S-958 22	Sweden

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 Moreno Taquería	Antonio Moreno	Mataderos 2312	México D.F.	05023	Mexico
4	Around the Horn	Thomas Hardy	120 Hanover Sq.	London	WA1 1DP	UK
5	Berglunds snabbköp	Christina Berglund	Berguvsvägen 8	Luleå	S-958 22	Sweden

 CustomerName	ContactName	 City	PostalCode	
Antonio Moreno Taquería				Mexico

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 Moreno Taquería	Antonio Moreno	Mataderos 2312	México D.F.	05023	Mexico
4	Around the Horn	Thomas Hardy	120 Hanover Sq.	London	WA1 1DP	UK

•	CustomerName	ContactName	 0.00000	PostalCode	
	Around the Horn	1			UK

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';