

SQL Wildcards

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SQL Wildcard Characters

A wildcard character is used to substitute one or more characters in a string.

Wildcard characters are used with the **LIKE** operator. The **LIKE** operator is used in a **WHERE** clause to search for a specified pattern in a column.

Wildcard Characters in MS Access

Symbol	Description	Example
*	Represents zero or more characters	bl* finds bl, black, blue, and blob
?	Represents a single character	h?t finds hot, hat, and hit
[]	Represents any single character within the brackets	h[oa]t finds hot and hat, but not hit
!	Represents any character not in the brackets	h[!oa]t finds hit, but not hot and hat
-	Represents any single character within the specified range	c[a-b]t finds cat and cbt
#	Represents any single numeric character	2#5 finds 205, 215, 225, 235, 245, 255, 265, 275, 285, and 295

Wildcard Characters in SQL Server

Symbol	Description	Example
%	Represents zero or more characters	bl% finds bl, black, blue, and blob
_	Represents a single character	h_t finds hot, hat, and hit
[]	Represents any single character within the brackets	h[oa]t finds hot and hat, but not hit
^	Represents any character not in the brackets	h[^oa]t finds hit, but not hot and hat
-	Represents any single character within the specified range	c[a-b]t finds cat and cbt

All the wildcards can also be used in combinations!

Here are some examples showing different **LIKE** operators with '%' and '_' wildcards:

LIKE Operator	Description
WHERE CustomerName LIKE 'a%'	Finds any values that starts with "a"
WHERE CustomerName LIKE '%a'	Finds any values that ends with "a"
WHERE CustomerName LIKE '%or%'	Finds any values that have "or" in any position
WHERE CustomerName LIKE '_r%'	Finds any values that have "r" in the second position
WHERE CustomerName LIKE 'a__%'	Finds any values that starts with "a" and are at least 3 characters in length
WHERE ContactName LIKE 'a%o'	Finds any values that starts with "a" and ends with "o"

Demo Database

The table below shows the complete "Customers" table from the Northwind sample database:

CustomerID	CustomerName	ContactName	Address	City	PostalCode
1	Alfreds Futterkiste	Maria Anders	Obere Str. 57	Berlin	12205
2	Ana Trujillo Emparedados y helados	Ana Trujillo	Avda. de la Constitución 2222	México D.F.	05109
3	Antonio Moreno Taquería	Antonio Moreno	Mataderos 2312	México D.F.	05349
4	Around the Horn	Thomas Hardy	120 Hanover Sq.	London	W1A 0AE
5	Berglunds snabbköp	Christina Berglund	Berguvsvägen 8	Luleå	S-971 80
6	Blauer See Delikatessen	Hanna Moos	Forsterstr. 57	Mannheim	68169

7	Blondel père et	Frédérique	24 place	Strasbourg	67
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Using the % Wildcard

The following SQL statement selects all customers with a City starting with "ber":

Example

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```
SELECT * FROM Customers
WHERE City LIKE 'ber%';
```

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The following SQL statement selects all customers with a City containing the pattern "es":

Example

```
SELECT * FROM Customers
WHERE City LIKE '%es%';
```

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Using the _ Wildcard

The following SQL statement selects all customers with a City starting with any character, followed by "ondon":

Example

```
SELECT * FROM Customers
WHERE City LIKE '_ondon';
```

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The following SQL statement selects all customers with a City starting with "L", followed by any character, followed by "n", followed by any character, followed by "on":

Example

```
SELECT * FROM Customers  
WHERE City LIKE 'L_n_on';
```

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Using the [charlist] Wildcard

The following SQL statement selects all customers with a City starting with "b", "s", or "p":

Example

```
SELECT * FROM Customers  
WHERE City LIKE '[bsp]%';
```

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The following SQL statement selects all customers with a City starting with "a", "b", or "c":

Example

```
SELECT * FROM Customers  
WHERE City LIKE '[a-c]%';
```

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Using the [!charlist] Wildcard

The two following SQL statements select all customers with a City NOT starting with "b", "s", or "p":

Example

```
SELECT * FROM Customers  
WHERE City LIKE '[!bsp]%';
```

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Or:

Example

```
SELECT * FROM Customers  
WHERE City NOT LIKE '[bsp]%';
```

Try it Yourself »