

## Wildcard Characters

- wildcard characters

%

\_

\*

you would need a wildcard character whenever you wished to put "anything" on its place

## BETWEEN... AND...



```
SELECT
  *
FROM
  employees
WHERE
  hire_date BETWEEN '1990-01-01' AND '2000-01-01';
```

The BETWEEN operator helps us designate the interval to which a given value belongs. That's why it is always used in combination with the AND operator. If we want to obtain a list of the people who were hired between the 1st of January 1990 and the 1st of January 2000, use the same select statement structure and indicate these higher dates in the WHERE clause using the following syntax. WHERE, higher date, BETWEEN 1990 01 01 and 2000 01 01.

## IS NOT NULL / IS NULL

- IS NOT NULL

used to extract values that are not null



```
SELECT column_1, column_2,... column_n
FROM table_name
WHERE column_name IS NOT NULL;
```

Next on our agenda is the IS NOT NULL operator. As its name suggests, it will be used to extract values that are not NULL. The syntax is intuitive. Select column names from a table where a certain column is NOT NULL.

## Other Comparison Operators

SQL	
=	equal to
>	greater than
>=	greater than or equal to
<	less than
<=	less than or equal to

### aggregate functions

they are applied on *multiple rows of a single column* of a table and return an output of *a single value*

- they ignore NULL values unless told not to

### Introduction to Aggregate Functions

#### COUNT()

counts the number of non-null records in a field

#### SUM()

sums all the non-null values in a column

#### MIN()

returns the minimum value from the entire list

#### MAX()

returns the maximum value from the entire list

#### AVG()

calculates the average of all non-null values belonging to a certain column of a table

An important feature of aggregate functions. They ignore null values unless told not to. This means if there were any null values in the employee number or the first name columns, count would not have counted them and would not have added them to the total.