

The following list provides additional information about other [SELECT](#) clauses:

- A [select_expr](#) can be given an alias using [AS alias_name](#). The alias is used as the expression's column name and can be used in [GROUP BY](#), [ORDER BY](#), or [HAVING](#) clauses. For example:

```
SELECT CONCAT(last_name,', ',first_name) AS full_name
FROM mytable ORDER BY full_name;
```

The [AS](#) keyword is optional when aliasing a [select_expr](#) with an identifier. The preceding example could have been written like this:

```
SELECT CONCAT(last_name,', ',first_name) full_name
FROM mytable ORDER BY full_name;
```

However, because the [AS](#) is optional, a subtle problem can occur if you forget the comma between two [select_expr](#) expressions: MySQL interprets the second as an alias name. For example, in the following statement, [columnb](#) is treated as an alias name:

```
SELECT columna columnb FROM mytable;
```

For this reason, it is good practice to be in the habit of using [AS](#) explicitly when specifying column aliases.

It is not permissible to refer to a column alias in a [WHERE](#) clause, because the column value might not yet be determined when the [WHERE](#) clause is executed. See [Section B.3.4.4, “Problems with Column Aliases”](#).

- The [FROM table_references](#) clause indicates the table or tables from which to retrieve rows. If you name more than one table, you are performing a join. For information on join syntax, see [Section 13.2.10.2, “JOIN Clause”](#). For each table specified, you can optionally specify an alias.

```
tbl_name [[AS] alias] [index_hint]
```

The use of index hints provides the optimizer with information about how to choose indexes during query processing. For a description of the syntax for specifying these hints, see [Section 8.9.4, “Index Hints”](#).

You can use [SET max_seeks_for_key=value](#) as an alternative way to force MySQL to prefer key scans instead of table scans. See [Section 5.1.8, “Server System Variables”](#).

- You can refer to a table within the default database as [tbl_name](#), or as [db_name.tbl_name](#) to specify a database explicitly. You can refer to a column as [col_name](#), [tbl_name.col_name](#), or [db_name.tbl_name.col_name](#). You need not specify a [tbl_name](#) or [db_name.tbl_name](#) prefix for a column reference unless the reference would be ambiguous. See [Section 9.2.2, “Identifier Qualifiers”](#), for examples of ambiguity that require the more explicit column reference forms.
- A table reference can be aliased using [tbl_name AS alias_name](#) or [tbl_name alias_name](#). These statements are equivalent:

```
SELECT t1.name, t2.salary FROM employee AS t1, info AS t2
WHERE t1.name = t2.name;

SELECT t1.name, t2.salary FROM employee t1, info t2
WHERE t1.name = t2.name;
```

- Columns selected for output can be referred to in [ORDER BY](#) and [GROUP BY](#) clauses using column names, column aliases, or column positions. Column positions are integers and begin with 1:

```
SELECT college, region, seed FROM tournament
ORDER BY region, seed;
```