

SQL Statement Quick Reference

There are three types of SQL Queries: *Data Definition*, and *Action Queries*, and *Selection Queries*.

1. Data Definition Statements CREATE TABLE, DROP TABLE

Data Type Reference: <http://dev.mysql.com/doc/refman/5.1/en/create-table.html>

Create a table in the current database:	<pre>CREATE TABLE my_table (id INT, name VARCHAR(50), balance DOUBLE, PRIMARY KEY id);</pre>
Remove a table:	<pre>DROP TABLE my_table; -- to delete the table entirely</pre>

2. Action Queries

Add a new record to the table, all fields:	<pre>INSERT INTO my_table VALUES (1, 'Fred', 3.2);</pre>
Add a new record to the table, just some fields:	<pre>INSERT INTO my_table (id, name) VALUES (3, "joe");</pre>
Modify an existing record:	<pre>UPDATE my_table SET balance='newval' WHERE id=2;</pre>
Deleting records:	<pre>DELETE FROM mytable WHERE name='Fred'</pre>

3. Selection Queries

Show everything in the table:	<pre>SELECT * FROM my_table;</pre>
Show some fields:	<pre>SELECT id, balance FROM mytable;</pre>
Conditional Selection: (can also use <, >=, !=, etc).	<pre>SELECT * FROM my_table WHERE name='Bill'</pre>
% matches zero or more chars, _ matches exactly 1 char	<pre>SELECT * FROM my_table WHERE name LIKE "A%"</pre>
Select with sort:	<pre>... ORDER BY name ASC, balance DESC</pre>
Conditional Operators	<pre>= > < >= <= != (aka <>)</pre>
Logical Operators	<pre>OR, AND, NOT</pre>
What to do with NULL	<pre>IS NOT NULL IS NULL</pre>
	<pre>BETWEEN NOT BETWEEN IN</pre>

4. Grouping and aggregate functions

Grouping and aggregate functions. No <i>group by</i> clause treats the whole table as one group. Also, sum()	<pre>SELECT avg(gpa), max(gpa), min(gpa) FROM table GROUP BY grouping_field;</pre>
Count is also an aggregate function,	<pre>COUNT(*) - count number of records COUNT(distinct major)</pre>
	<pre>SELECT grouping_field, avg(gpa) FROM table GROUP BY grouping_field;</pre>
Where doesn't work with aggregate functions, so use HAVING	<pre>SELECT grouping_field, avg(gpa) as GPA FROM table GROUP BY grouping_field HAVING GPA < 2.0;</pre>

5. SQL Functions

UCASE() LCASE()	
NOW() YEAR() CURDATE()	
FORMAT()	
CONCAT(Firstname, " ", Lastname)	

REFERENCE W3SCHOOLS