# HiveQL and MySQL Comparison

## Retrieve Data

| Function | MySQL | Hive |
|---|---|---|
| Retrieving Information (General) | `SELECT from_columns FROM table WHERE conditions;` | `SELECT from_columns FROM table WHERE conditions;` |
| Retrieving All Values | `SELECT * FROM table;` | `SELECT * FROM table;` |
| Retrieving Some Values | `SELECT * FROM table WHERE rec_name = "value";` | `SELECT * FROM table WHERE rec_name = "value";` |
| Retrieving With Multiple Criteria | `SELECT * FROM TABLE WHERE rec1 = "value1" AND rec2 = "value2";` | `SELECT * FROM TABLE WHERE rec1 = "value1" AND rec2 = "value2";` |
| Retrieving Specific Columns | `SELECT column_name FROM table;` | `SELECT column_name FROM table;` |
| Retrieving Unique Output | `SELECT DISTINCT column_name FROM table;` | `SELECT DISTINCT column_name FROM table;` |
| Sorting | `SELECT col1, col2 FROM table ORDER BY col2;` | `SELECT col1, col2 FROM table ORDER BY col2;` |
| Sorting Reverse | `SELECT col1, col2 FROM table ORDER BY col2 DESC;` | `SELECT col1, col2 FROM table ORDER BY col2 DESC;` |

| | | |
|---|---|---|
| Counting Rows | `SELECT COUNT(*) FROM table;` | `SELECT COUNT(*) FROM table;` |
| Grouping With Counting | `SELECT owner, COUNT(*) FROM table GROUP BY owner;` | `SELECT owner, COUNT(*) FROM table GROUP BY owner;` |
| Maximum Value | `SELECT MAX(col_name) AS label FROM table;` | `SELECT MAX(col_name) AS label FROM table;` |
| Selecting from multiple tables (Join same table using alias w/"AS") | `SELECT pet.name, comment FROM pet, event WHERE pet.name = event.name;` | `SELECT pet.name, comment FROM pet JOIN event ON (pet.name = event.name)` |

## Environment

| Function | MySQL | Hive |
|---|---|---|
| Selecting a database | `USE database;` | `USE database;` |
| Listing databases | `SHOW DATABASES;` | `SHOW DATABASES;` |
| Listing tables in a database | `SHOW TABLES;` | `SHOW TABLES;` |
| Describing the format of a table | `DESCRIBE table;` | `DESCRIBE (FORMATTED|EXTENDED) table;` |

| | | |
|---|---|---|
| Creating a database | `CREATE DATABASE db_name;` | `CREATE DATABASE db_name;` |
| Dropping a database | `DROP DATABASE db_name;` | `DROP DATABASE db_name (CASCADE);` |