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MySQL Cheatsheet

Search Queries

- **SELECT** *
  FROM table_name;

- **SELECT** column_1,
  column_2
  FROM table_name;

- **SELECT** column_1,
  column_2
  FROM table_name
  WHERE condition;

- WHERE condition_1 AND condition2
- WHERE condition1 OR condition2
- WHERE NOT condition
- WHERE condition1 AND (condition2 OR condition3)
- WHERE EXISTS
  (SELECT column_name
  `FROM` table_name
  WHERE condition)

Alias's

- **SELECT** column_name **AS** alias_name
  FROM table_name;

- **SELECT** column_name
  FROM table_name **AS** alias_name ;

- **SELECT** column_1 + ' ' + column_2 **AS** alias_name
  FROM table_name;

Aggregate Functions

- **SELECT DISTINCT** columns
  FROM table_name;

- **SELECT COUNT** (column_name)
  FROM table_name;

- **SELECT MIN** (column_name)
  FROM table_name;

- **SELECT MAX** (column_name)
  FROM table_name;

- **SELECT SUM** (column_name)
  FROM table_name;

- **SELECT AVG** (column_name)
  FROM table_name;

Allows Aggregates in WHERE

- **SELECT** columns
  FROM table_name
  GROUP BY column_name
  HAVING aggreg_fn (condition) > value;

Enhancing Where

Range of Values
- **SELECT** columns
  FROM table_name
  WHERE condition **BETWEEN** value_1 **AND** value_2;

Multiple Values
- **SELECT** columns
  FROM table_name
  WHERE condition **IN** (value_1, value_2, etc...)
- **SELECT** columns
  FROM table_name
  WHERE condition **IN** (value_1, value_2, etc...)

Empty Values
- **SELECT** columns
  FROM table_name
  WHERE condition **IS NULL** ;

Pattern Matching
- **SELECT** columns
  FROM table_name
  WHERE condition **LIKE** pattern;

- LIKE '%a'
- LIKE '%a'
- LIKE '%or%'
- LIKE '_r%'
- LIKE 'a_%_%'
- LIKE '[a-c]%'

Presenting Datasets

Ordering
- **SELECT** columns
  FROM table_name
  ORDER BY column;
- **SELECT** columns
  FROM table_name
  ORDER BY column **DESC**;
- **SELECT** columns
  FROM table_name
  ORDER BY column_1 **DESC**, column_2 **ASC**;

Limiting
- **SELECT** columns
  FROM table_name
  LIMIT count;
- **SELECT** columns
  FROM table_name
  LIMIT offset, count;

Grouping
- **SELECT** columns
  FROM table_name
  WHERE condition
  GROUP BY column;

Overlapping Data Sets

- **SELECT** col_1, col_2
  FROM table_1
  UNION
  SELECT col_1, col_2
  FROM table_2;

- **SELECT** col_3, col_1
  FROM table_1
  INTERSECT
  SELECT col_3, col_1
  FROM table_2;

- **SELECT** col_1, col_3
  FROM table_1
  EXCEPT
  SELECT col_1, col_3
  FROM table_2;

Joins

- **SELECT** columns
  FROM table_1
  INNER JOIN table_2 **ON** table_1.col_name = table_2.col_name;

- **SELECT** columns
  FROM table_1
  LEFT JOIN table_2 **ON** table_1.col_name = table_2.col_name;

- **SELECT** columns
  FROM table_1
  RIGHT JOIN table_2 **ON** table_1.col_name = table_2.col_name;

- **SELECT** columns
  FROM table_1
  FULL OUTTER JOIN table_2 **ON** table_1.col_name = table_2.col_name;

Modifying Data

Inserting
- **INSERT INTO** table_name (col_1, col_2, etc) **VALUES** (val_1, val_2, etc);
- **INSERT INTO** table_name **VALUES** (val_1, val_2, etc);

Dropping
- **DELETE * FROM** table_name;
- **DELETE FROM** table_name **WHERE** condition;

Updating
- **UPDATE** table_name **SET** col_1 = val_1;
- **UPDATE** table_name **SET** col_1 = val_1, col_2 = val_2
- **WHERE** condition;

Modifying Database

Dropping Database
- **DROP DATABASE** database_name;
- **DROP DATABASE IF EXISTS** database_name;

Rename Table
- **RENAME TABLE** table_name;

Dropping Tables
- **DROP TABLE** table_name;
- **DROP Table IF EXISTS** table_name;
- **DROP TABLE** db_name. table_name;

Truncate Table
- **TRUNCATE TABLE** table_name;

Modifying Tables

Adding a Field
- **ALTER TABLE** table_name **ADD** field_name data_type attributes;

Modifying a Field
- **ALTER TABLE** table_name **MODIFY** field_name data_type attributes;

Dropping a Field
- **ALTER TABLE** table_name **DROP** field;

Creating Objects

- **CREATE DATABASE** database_name;
- **CREATE DATABASE IF NOT EXISTS** database_name;

- **CREATE TABLE** table_name
  (
      column_name_1 datatype attribute_1 attribute_2 ...,
      column_name_2 datatype attribute_1 attribute_2 ...
  );

- Int
- varchar
- binary
- date
- decimal

- PRIMARY KEY
- REFERENCES
- NOT NULL
- UNIQUE
- AUTO_INCREMENT
- DEFAULT

Managing Users

Listing Users and Permissions
- **SELECT *** **FROM** mysql.user;

Creating Users
- **CREATE USER** user_name **IDENTIFIED BY** 'password';

Granting User Permissions
- **GRANT** priv_1, priv_2, etc **ON** db.table_1, db.table_2, etc **TO** user_1, user_2;
- **GRANT** priv_1, priv_2, etc **ON** db.table_1, db.table_2, etc **TO** user_1, user_2 **WITH GRANT OPTION**;

Listing Grants for a User
- **SHOW GRANTS FOR** user;

Revoking User Permissions
- **REVOKE** priv_1, priv_2, etc **ON** db.table_1, db.table_2, etc **TO** user_1, user_2;

Encrypting Data

Encrypt
- **INSERT INTO SELECT** table_name (col_1, col_2, etc) **VALUES** (val_1, aes_encrypt('value', 'key');

Decrypt
- **SELECT** username, aes_decrypt(column, 'key') **FROM** table_name;