

SQL & NoSQL

Cheat Sheet

Your Go-To Quick
Reference Guide for
SQL & NoSQL



Querying Data

1 SELECT

Retrieve data from one or more tables.

1

2

DISTINCT

Select distinct values in a column.

3

WHERE

Filter rows using a condition.

Querying Data

AND, OR, NOT

Combine multiple conditions.

4

5

ORDER BY

Sort the result set by a column.

6

LIMIT & OFFSET

Limit the number of rows and skip rows.

Querying Data

7

GROUP BY

Group rows with the same values in specified columns.

8

HAVING

Filter the results of a GROUP BY.

Joining Tables

INNER JOIN

Combine rows from related tables based on a condition.

1

2

LEFT JOIN

Return all rows from the left table and the matched rows from the right table.

3

RIGHT JOIN

Return all rows from the right table and the matched rows from the left table.

Joining Tables

FULL JOIN

Return all rows when there's a match in either table.

4

5

CROSS JOIN

Return the Cartesian product of two tables.

6

SELF JOIN

Join a table to itself using aliases.

Aggregating & Analyzing Data

COUNT()

Count the number of rows.

1

2

SUM()

Calculate the sum of a column.

3

AVG()

Calculate the average of a column.

Aggregating & Analyzing Data

1

MIN() & MAX()

Find the minimum and maximum value in a column.

2

GROUP_CONCAT()

Concatenate values from a group.

SQL Functions & Expressions

1

COALESCE()

Return the first non-null value from a list.

2

NULLIF()

Return null if two expressions are equal.

3

CASE

Perform conditional logic in SQL queries.

SQL Functions & Expressions

1

CAST()

Convert a value to a specified data type.

2

CONCAT()

Concatenate two or more strings.

Working with Tables

CREATE TABLE

Create a new table.

1

2

ALTER TABLE

Modify an existing table.

3

DROP TABLE

Remove a table.

Working with Tables

4

TRUNCATE TABLE

Remove all rows from a table without deleting the table structure.

5

RENAME TABLE

Rename a table.

Constraints & Indexes

PRIMARY KEY

Uniquely identify each row in a table.

1

2

FOREIGN KEY

Ensure referential integrity between two tables.

3

UNIQUE

Ensure unique values in a column.

Constraints & Indexes

CHECK

Ensure that all values in a column satisfy a condition.

4

5

DEFAULT

Set a default value for a column.

6

NOT NULL

Ensure a column cannot contain NULL values.

Constraints & Indexes

7

CREATE INDEX

Create an index on a table.

8

DROP INDEX

Remove an index.

Views, Stored Procedures & Triggers

1

CREATE VIEW

Create a virtual table based on a SELECT statement.

2

DROP VIEW

Remove a view.

3

CREATE PROCEDURE

Create a stored procedure.

Views, Stored Procedures & Triggers

4

EXECUTE

Run a stored procedure.

5

DROP PROCEDURE

Remove a stored procedure.

6

CREATE TRIGGER

Create a trigger that executes a specified action when an event occurs.

Views, Stored Procedures & Triggers

7

DROP TRIGGER

Remove a trigger.

User Management

1

CREATE USER

Create a new user.

2

DROP USER

Remove a user.

3

ALTER USER

Change the password of a user.

User Management

4

GRANT

Give a user access to specific privileges.

5

REVOKE

Remove a user's access to specific privileges.

Database Specific Commands

SQL Server

1

IDENTITY

Auto-increment a column's value.

2

TOP

Limit the number of rows returned.

Oracle

ROWNUM

Limit the number of rows returned.

1

2

SEQUENCE

Create a sequence for generating unique numbers.

3

NEXTVAL

Get the next value of a sequence.

PostgreSQL

SERIAL

Auto-increment a column's value.

1

LIMIT & OFFSET

Limit the number of rows returned and skip rows.

2

MySQL

AUTO_INCREMENT

Auto-increment a column's value.

1

2

LIMIT & OFFSET

Limit the number of rows returned and skip rows.

3

SHOW TABLES

List all tables in the current database

MySQL

4

DESCRIBE TABLE

Display a table's structure.

NoSQL Cheat Sheet

NoSQL Database Types

1

Key-Value

Stores data as key-value pairs (e.g., Redis, Riak).

2

Document

Stores data as documents, typically in JSON format (e.g., MongoDB, Couchbase).

NoSQL Database Types

3

Column-Family

Stores data in columns grouped together as column families (e.g., Cassandra, HBase).

4

Graph

Stores data as nodes and edges in a graph (e.g., Neo4j, Amazon Neptune)

CRUD Operations

1

CREATE

Add a new item to the database.

2

READ

Retrieve an item or items from the database.

3

UPDATE

Modify an existing item in the database.

CRUD Operations

4

DELETE

Remove an item from the database

MongoDB Specific

1

`db.collection.insertOne()`

Insert a single document.

2

`db.collection.insertMany()`

Insert multiple documents.

3

`db.collection.find()`

Query documents.

MongoDB Specific

4

`db.collection.findOne()`

Query a single document.

5

`db.collection.updateOne()`

Update a single document.

6

`db.collection.updateMany()`

Update multiple documents.

MongoDB Specific

7

`db.collection.deleteOne()`

Delete a single document.

8

`db.collection.deleteMany()`

Delete multiple documents.

9

`db.collection.createIndex()`

Create an index.

Cassandra Specific

1

CREATE KEYSPACE

Create a new keyspace.

2

CREATE TABLE

Create a new table.

3

INSERT INTO

Insert data into a table.

Cassandra Specific

4

SELECT

Retrieve data from a table.

5

UPDATE

Update data in a table.

6

DELETE

Remove data from a table.

Cassandra Specific

7

ALTER TABLE

Modify an existing table.

8

DROP TABLE

Delete a table.

Neo4j Specific

CREATE (n)

Create a new node.

1

2

**CREATE (a)-
[r:REL_TYPE]->(b)**

Create a new relationship
between nodes.

3

MATCH (n)

Query nodes.

Neo4j Specific

MATCH (a)-
[r:REL_TYPE]->(b)

Query relationships.

4

5

SET n.property = value

Update a node's property

6

SET r.property =
value

Update a relationship's
property.

Neo4j Specific

7

DETACH DELETE n

Delete a node and its relationships.

8

DELETE r

Delete a relationship.

Redis Specific

SET Key Value

Set the value of a key.

1

2

3

GET Key

Get the value of a key.

DEL Key

Delete a key.

Redis Specific

EXISTS Key

Check if a key exists.

4

5

INCR Key

Increment the integer value of a key.

6

DECR Key

Decrement the integer value of a key.

Redis Specific

7

LPUSH Key Value

Prepend a value to a list.

8

RPUSH Key Value

Append a value to a list.

9

LPOP Key

Remove and return the first element of a list.

Redis Specific

10

RPOP Key

Remove and return the last element of a list.

11

SADD Key Value

Add a value to a set.

12

SREM Key Value

Remove a value from a set.

Redis Specific

13

SMEMBERS Key

Get all members of a set.

14

HSET Key Field Value

Set the value of a field in a hash.

15

HGET Key Field

Get the value of a field in a hash.

Redis Specific

16

HDEL Key Field

Delete a field from a hash.

17

HGETALL Key

Get all fields and values of a hash.

18

EXPIRE Key Seconds

Set a key's time to live in seconds.

Redis Specific

19

TTL Key

Get the remaining time to live of a key.

Couchbase Specific

1

CREATE BUCKET

Create a new bucket.

2

INSERT

Insert a document into a bucket.

3

SELECT

Query documents using
N1QL (SQL-like
language).

Couchbase Specific

4

UPDATE

Update a document.

5

DELETE

Remove a document from a bucket.

6

CREATE INDEX

Create an index for efficient querying.

Couchbase Specific

7

DROP INDEX

Remove an index.

8

UPsert

Insert or update a document.

Amazon Specific

DynamoDB

1

CreateTable

Create a new table.

2

DeleteTable

Remove a table.

3

PutItem

Insert an item into a table.

Amazon Specific

DynamoDB

4

UpdateItem

Modify an item in a table.

5

GetItem

Retrieve an item from a table.

6

DeleteItem

Remove an item from a table.

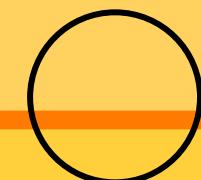
Amazon Specific

DynamoDB

7

Query

Query items based on a condition.

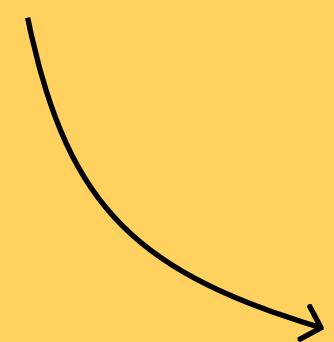


8

Scan

Scan a table and retrieve items.

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