

MongoDB Quick Reference guide

This quick reference guide will help you to quickly refer to the mapping between SQL and MongoDB terminologies/concepts.

Schema statements (Create and Alter)

SQL	MongoDB
Create table student <pre>(id int not null, firstName Varchar(30), lastName Number, primary key (Id))</pre>	<p>You can explicitly create a collection if you want:</p> <pre>db.createCollection("student")</pre> <p>Otherwise, it is implicitly created on first insertOne() or insertMany() operation. The primary key _id is added automatically if not specified.</p> <pre>db.student.insertOne({ id: 123, firstName: "Fname", lastName: "Lname", })</pre> <pre>db.students.createIndex({ "id": 1 }, { unique: true })</pre>
Alter Table student Add birth_date datetime	<pre>db.student.updateMany({ }, { \$set: { birth_date: new Date() } })</pre>

Select Statements

SQL	MongoDB
Select * from student	db.student.find()
Select firstName, lastName from student	<pre>db.student.find({ }, { firstName: 1, lastName: 1, _id: 0, id: 0 })</pre>

Select * from student where firstName = "fName"	db.student.find({ firstName: "fName"})
Select firstName, lastName from student where firstName = "fName"	db.student.find({ firstName: "fName"} { firstName: 1, lastName: 1, _id: 0, id:0 })
Select * from student where firstName != "fName"	db.student.find({ firstName: { \$ne: "fName"}})

Update Statements

UPDATE student SET firstName = "FirstName" WHERE lastName = "LName"	db.people.updateMany({ lastName: { \$eq: "LName" } }, { \$set: { fName: "FirstName" } })
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Delete Statements

DELETE FROM student	db.student.deleteMany({})
DELETE FROM student WHERE id = 123	db.student.deleteMany({ id: "D" })

SQL Terminologies/Concepts	MongoDB Terminologies/Concepts
Database	database
Table	collection
Row	document
Column	field
Index	index
table joins	\$lookup, embedded documents
primary key Specify any unique column or column combination as primary key.	primary key In MongoDB, the primary key is automatically set to the _id field.
aggregation (e.g. group by)	aggregation pipeline
Select into new table	\$out
Merge into new table	\$merge
Unionall	\$unionWith
Transactions	transactions
WHERE	\$match
GROUP BY	\$group
HAVING	\$match
SELECT	\$project
ORDER BY	\$sort
LIMIT	\$limit
SUM()	\$sum
COUNT()	\$sum \$sortByCount
Join	\$lookup
OR	\$or
AND	\$and
>	\$gt

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<	\$lt
!=	\$ne
=	\$eq
>=	\$gte
<=	\$lte
Set	\$set