perplexity

Important Operators in MongoDB

MongoDB provides a variety of operators to perform powerful and flexible queries and updates. Here are the most important and commonly used operators, grouped by category:

Comparison Operators

Operator	Description	
$eq	Matches values that are equal to a specified value.	
$ne	Matches values that are not equal to a specified value.	
$gt	Matches values that are greater than a specified value.	
$gte	Matches values that are greater than or equal to a specified value.	
$lt	Matches values that are less than a specified value.	
$lte	Matches values that are less than or equal to a specified value.	
$in	Matches any of the values specified in an array.	
$nin	Matches none of the values specified in an array.	[1] [2] [3] [4]

Logical Operators

Operator	Description	
$and	Joins query clauses with a logical AND. Returns documents that match all the conditions.	
$or	Joins query clauses with a logical OR. Returns documents that match at least one condition.	
$nor	Joins query clauses with a logical NOR. Returns documents that fail all the conditions.	
$not	Inverts the effect of a query expression.	[1] [2] [5] [6]

Element Operators

Operator	Description	
$exists	Matches documents that have the specified field.	
$type	Matches documents where the value of a field is of the specified BSON type.	[4]

Array Operators

Operator	Description	
$all	Matches arrays that contain all elements specified.	
$elemMatch	Matches documents that contain an array field with at least one element that matches all the specified query criteria.	
$size	Selects documents if the array field is a specified size.	[1] [4]

Evaluation Operators

Operator	Description	
$regex	Selects documents where values match a specified regular expression.	
$text	Performs text search.	
$where	Matches documents that satisfy a JavaScript expression.	[2] [4]

Update Operators

Operator	Description	
$set	Sets the value of a field in a document.	
$unset	Removes the specified field from a document.	
$inc	Increments the value of the field by the specified amount.	
$push	Adds an item to an array.	
$pull	Removes all array elements that match a specified query.	
$addToSet	Adds elements to an array only if they do not already exist in the set.	[7]

These operators form the foundation for querying and updating documents in MongoDB. For more advanced use, MongoDB also supports geospatial, bitwise, and projection operators, but the above are the most essential for everyday database operations. [1] [2] [7] [4]

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1. https://www.bmc.com/blogs/mongodb-operators/

2. https://www.w3schools.com/mongodb/mongodb_query_operators.php

3. https://www.mongodb.com/docs/manual/reference/operator/query-comparison/

4. https://www.linkedin.com/pulse/mongodb-operators-preethi-pattabiraman-bhyac

5. https://roadmap.sh/mongodb/query-operators/logical-operators

6. https://www.scaler.com/topics/mongodb/mongo-db-operators/

7. https://www.mongodb.com/docs/manual/reference/operator/update/