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Query and Projection Operators

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NOTE

For details on a specific operator, including syntax and examples,

click on the link to the operator's reference page.

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Compatibility

You can use query and projection operators for deployments hosted in the following environments:

- MongoDB Atlas: The fully managed service for MongoDB deployments in the cloud
- MongoDB Enterprise: The subscription-based, self-managed version of MongoDB

- MongoDB Community: The source-available, free-to-use, and self-managed version of MongoDB

TIP

You can use operators when querying your data with `mongosh` methods, the Atlas UI, or Compass.

Query Selectors

Comparison

For comparison of different BSON type values, see the

specified BSON comparison order.

Name	Description
`$eq`	Matches values that are equal to a specified value.
`$gt`	Matches values that are greater than a specified value.
`$gte`	Matches values that are greater than or equal to a specified value.
`$in`	Matches any of the values specified in an array.
`$lt`	Matches values that are less than a specified value.
`$lte`	Matches values that are less than or equal to a specified value.

Reference

Name	Description
`$ne`	Matches all values that are not equal to a specified value.
`$nin`	Matches none of the values specified in an array.

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Logical

Name	Description
`$and`	Joins query clauses with a logical `AND` returns all documents that match the conditions of both clauses.
`$not`	Inverts the effect of a query expression and returns documents that do *not* match the query expression.

MongoDB Server Parameters

Name	Description
`$nor`	Joins query clauses with a logical `NOR` returns all documents that fail to match both clauses.
`$or`	Joins query clauses with a logical `OR` returns all documents that match the conditions of either clause.

Element

Name	Description
`$exists`	Matches documents that have the specified field.
`$type`	Selects documents if a field is of the specified type.

Evaluation

Name	Descri
`$expr`	Allows of aggreg n expres within query langua
`$jsonSchema`	Validat docum agains given J Schem
`$mod`	Perforr modul operat on the of a fie and se docum with a specifi result.
`$regex`	Selects docum where values match specifi regula expres
`$text`	Perforr text se

Name	Descri
`$where`	Match docum that sa a JavaSc expres

Geospatial

Name	De
`$geoIntersects`	Sel ge inte Ge ge 2ds sup `$g` .
`$geoWithin`	Sel ge a b Ge ge 2ds ind `$g`
`$near`	Ret ge obj pro poi ge The 2d sup

Name	De
`$nearSphere`	Ret geo obj pro poi Rec geo The 2d sup `$n`

Array

Name	Descript
`$all`	Matches arrays th contain element specifie the quer
`$elemMatch`	Selects docume element the arra field matches the spec `$elemM` conditio

Name	Descript
`$size`	Selects docume the arra field is a specifie size.

Bitwise

Name	Desc
`$bitsAllClear`	Mat num bina valu whic of bi posi have valu
`$bitsAllSet`	Mat num bina valu whic of bi posi have valu

Name	Desc
`$bitsAnyClear`	Mat num bina valu whic bit fi set c posi has of `0`
`$bitsAnySet`	Mat num bina valu whic bit fi set c posi has of `1`

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Projection Operators

Name	Descript
`$`	Projects first eler in an arr that matches query conditio

Name	Descript
`$elemMatch`	Projects first eler in an arr that matches specifie `$elemM` conditio
`$meta`	Projects docume score assigne during `$text` operatic
`$slice`	Limits th number element projecte from an array. Support skip anc limit slic

Miscellaneou Operators

Name	Descriptio
`$comment`	Adds a comment t a query predicate.

Name	Descriptio
`$rand`	Generates a random float between 0 and 1.

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