**Mongo DB**

Why NoSQL?

* Two most import advantages that NoSQL databases provide i.e., Flexibility, High Scalability.

DBMS – Mongo DB, Couch DB, Orient DB, MySQL, Oracle, Microsoft SQL server.

**MongoDB:**

* In Document Database data is stored in Binary json format.
* Mango DB is one of the most popular document databases and used in popular stacks like MERN and MEAN.
* MongoDB is a NoSQL document database.
* **Use cases** – Gaming, Mobile Application Development, Internet of Things, Real time Analytics.
* **Used By** – Facebook, Google, Linkedin, Microsoft and many more.
* Data is stored in JSON like documents.
* Example:

{

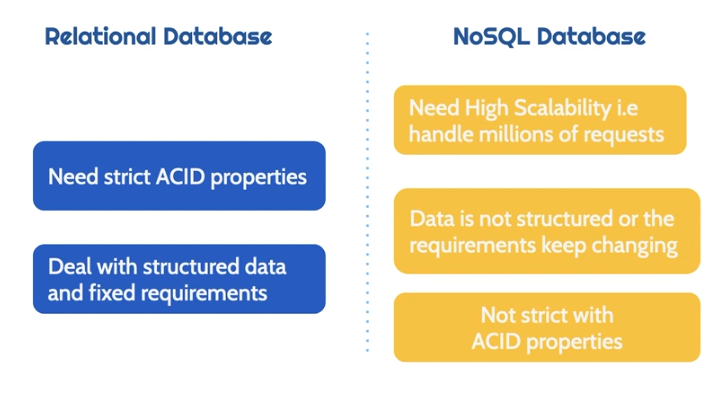
age: 14,

name: “Sree Vardhan”,

}

* Group documents are called a **collection**.
* Each row in table equivalent to Each document in collection.

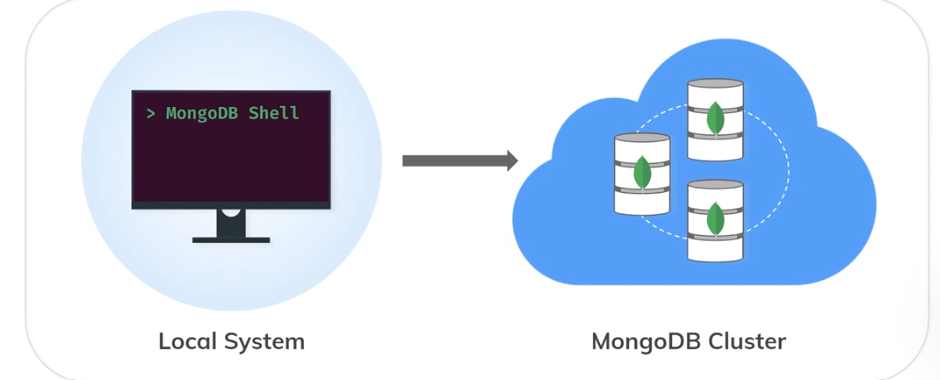
|  |  |
| --- | --- |
| MySQL | MongoDB |
| Database | Database |
| Table | Collection |
| Row | Document |
| Column | Field |



**Getting Started with MongoDB:**

* Setting up MongoDB:
* To get Started with MongoDB and create databases in it, we need to perform the below steps

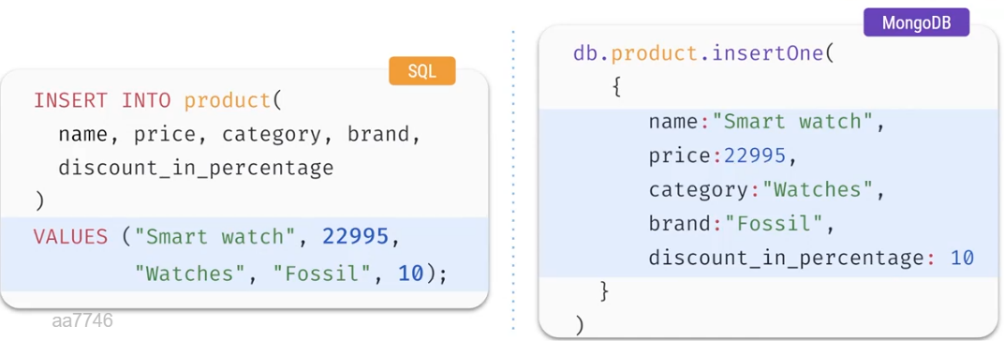
1. Create MangoDB cluster
2. Install MangoDB shell
3. Connect to MongoDB

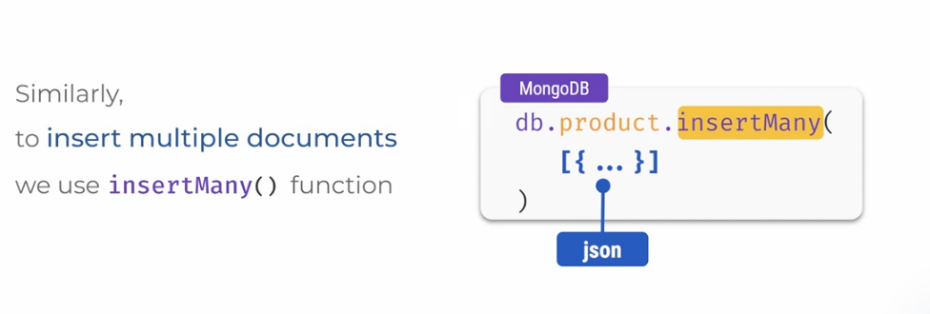


* **mongosh –version:** Run this command in the terminal to check if the MongoDB shell has been successfully installed or not.
* **show databases:** used to show the existing databases.
* **use databaseName:** This command is generally used to switch between databases, any how this will create a new database if it does not exist.
* **db.createCollection(“Name”):** is used to create a collection [similar to table in RDBMS]
* **db,getCollectionNames():** is used to get the existing collection Names.

**Querying MongoDB:**

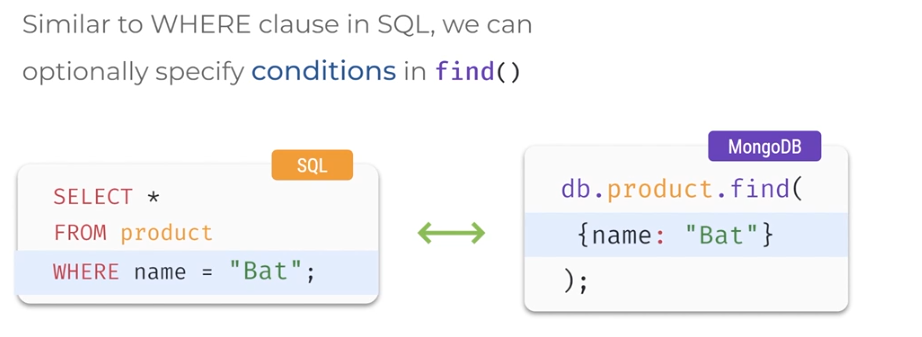
* **CURD Operations:**

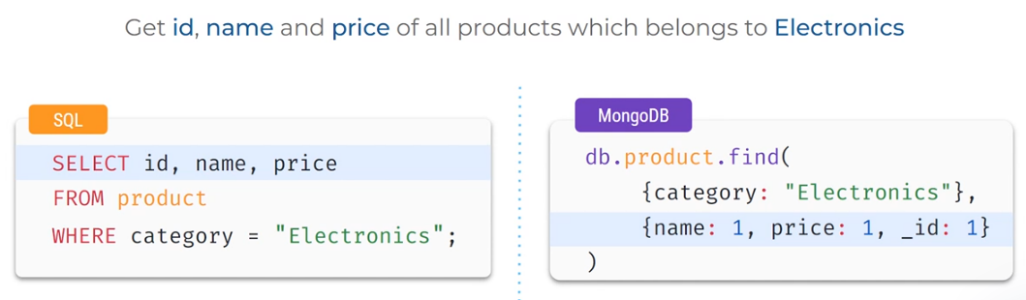
1. **Create:**

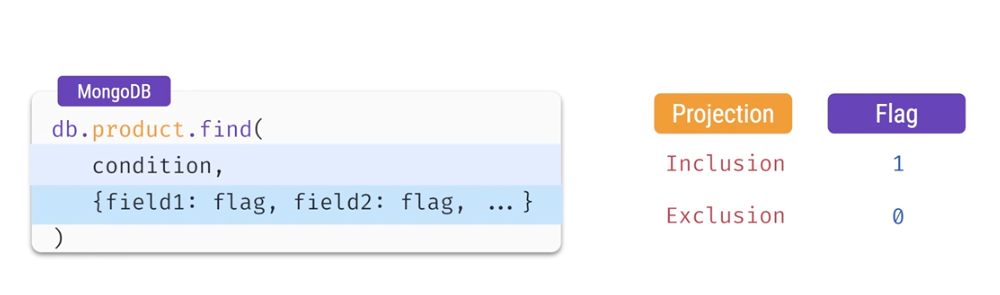
****

1. **Read:**

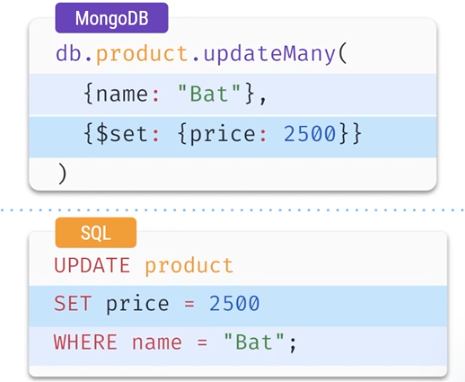
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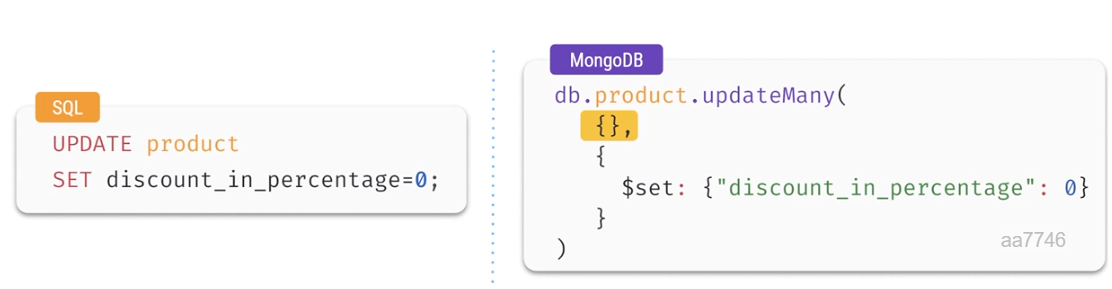
****

****

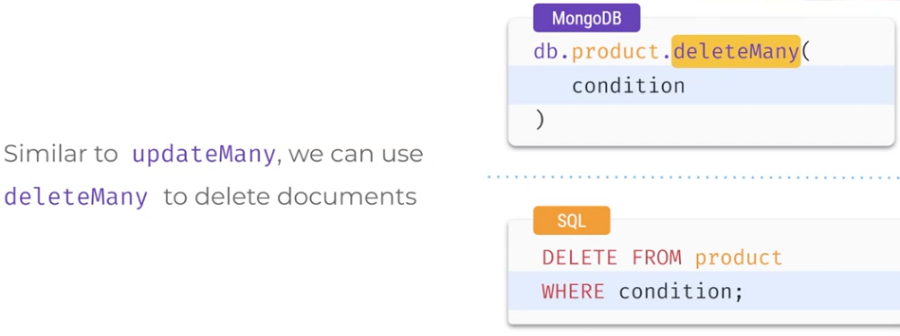
****

1. **Update:**

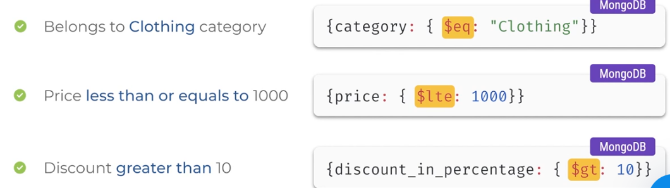
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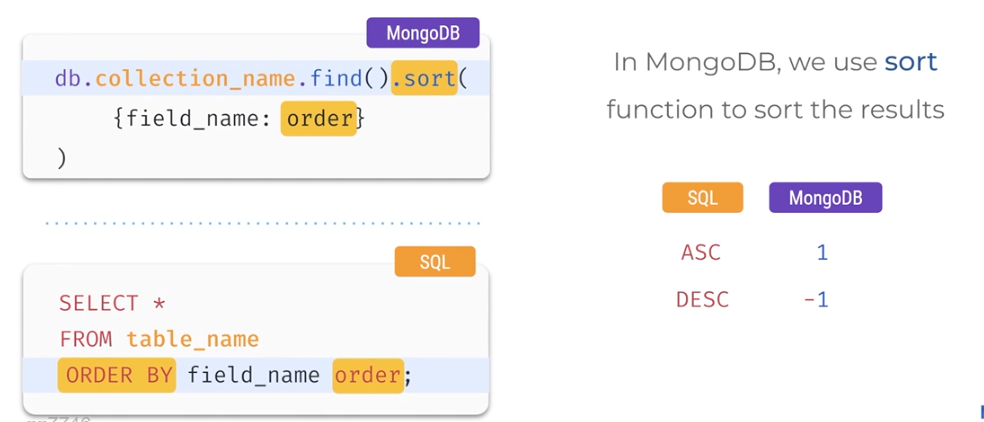
****All the fields will be will be updated if you won’t specify the condition.

1. **Delete:**

****

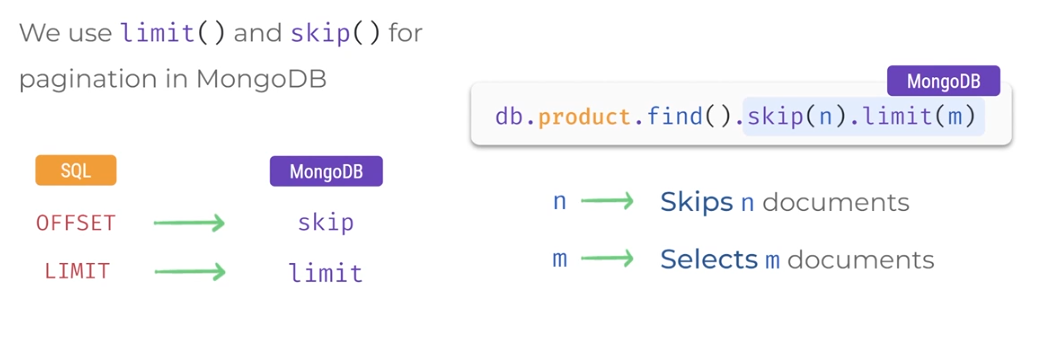
**Comparison operators:**

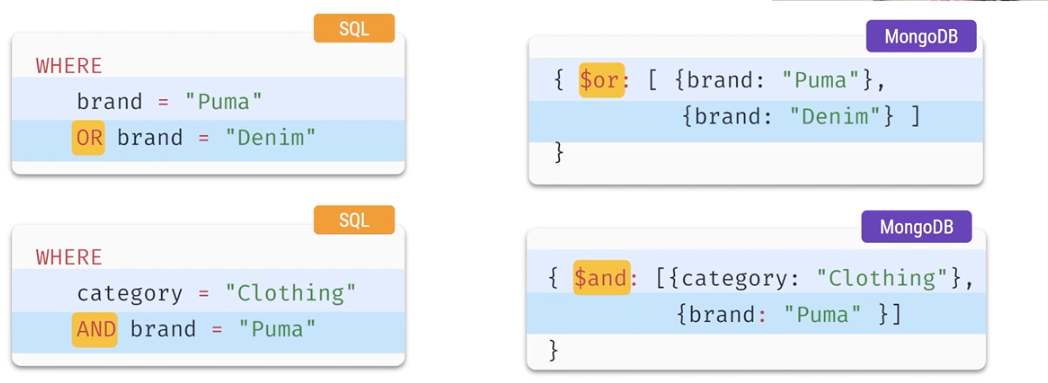


**Ordering Results:**



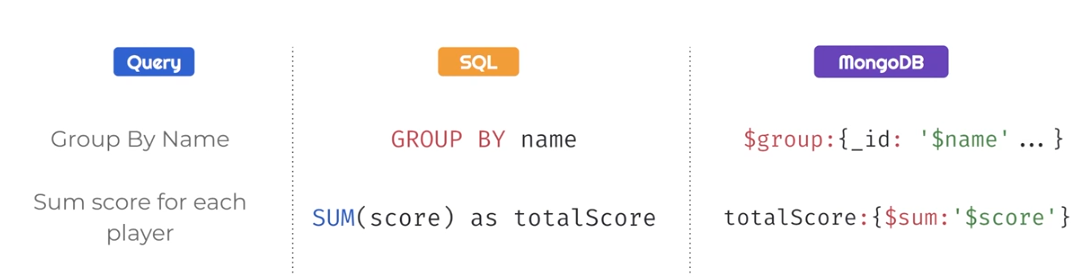
**Pagination:**

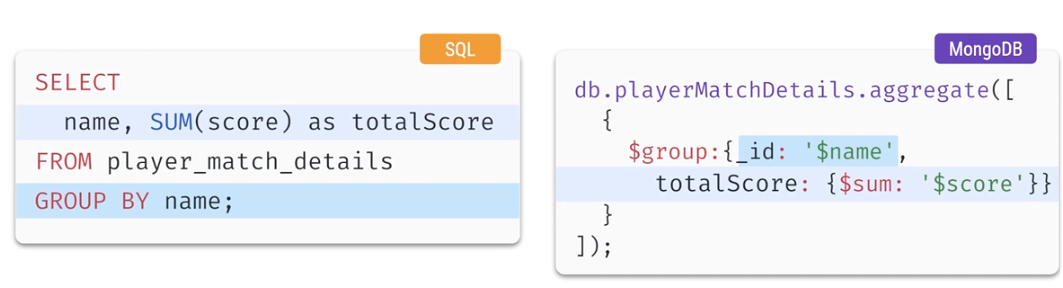
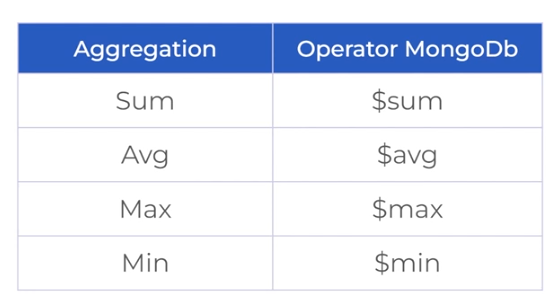
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**Logical Operators:**

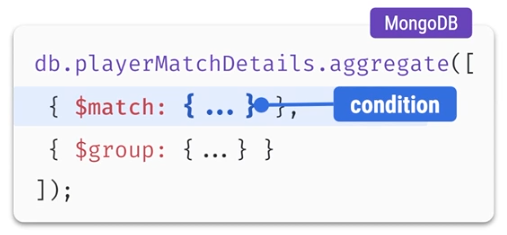
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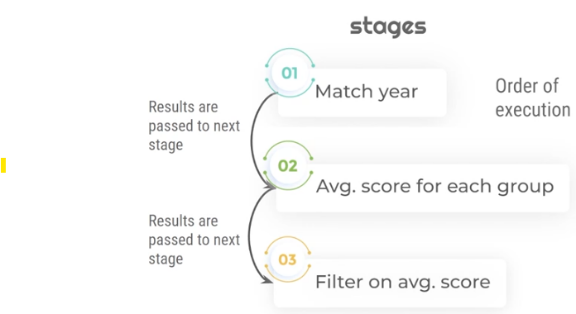
**Combination of AND, OR logical operators:**

**Grouping and Aggregations:**

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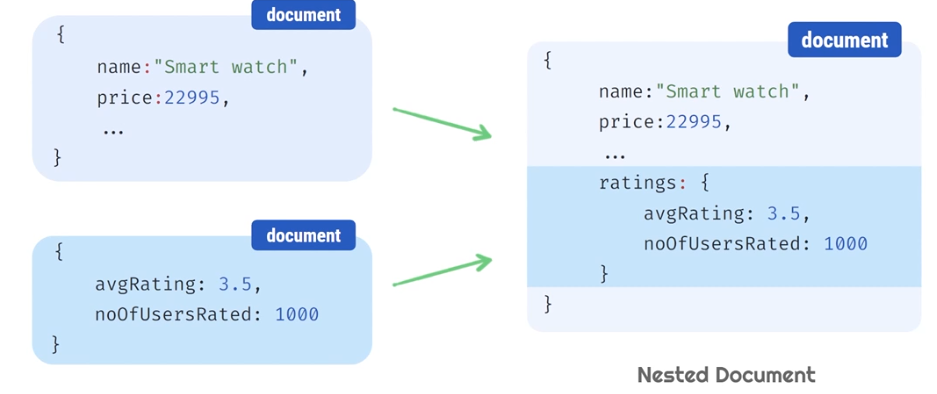
* **Aggregation on Selected Documents:**

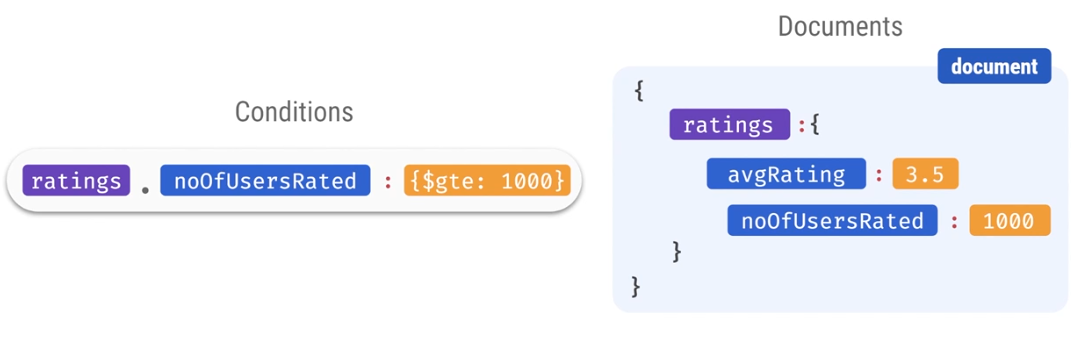


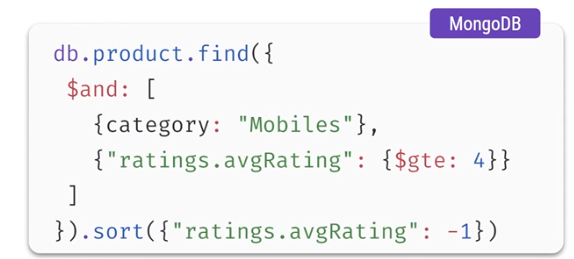
Q) Retrieve players whose average score in the year 2021 is greater than 40

**Complex Field Types:**

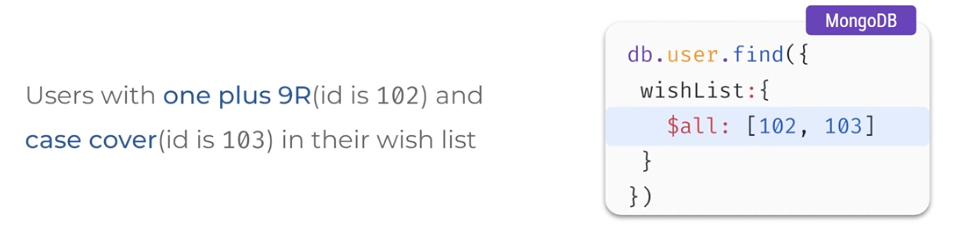
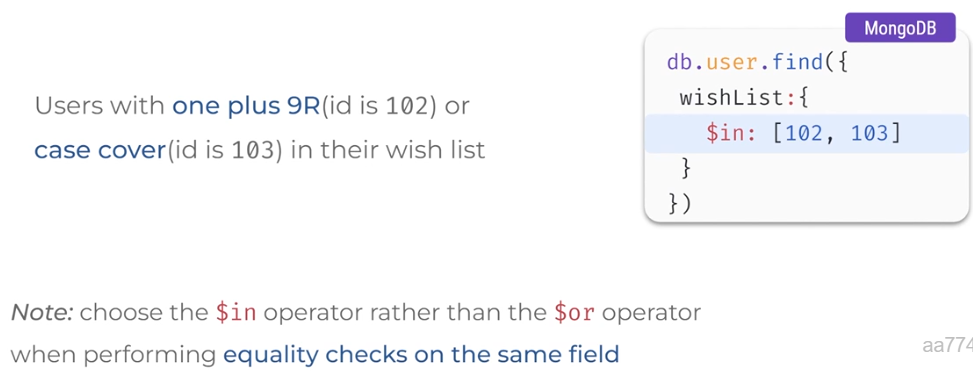
* **Nested Document / Embedded Document:**

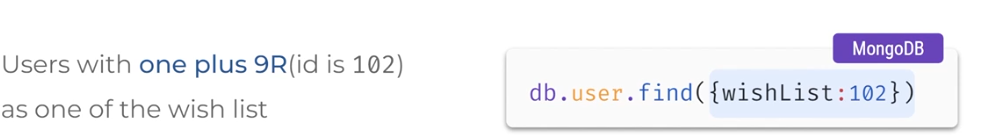
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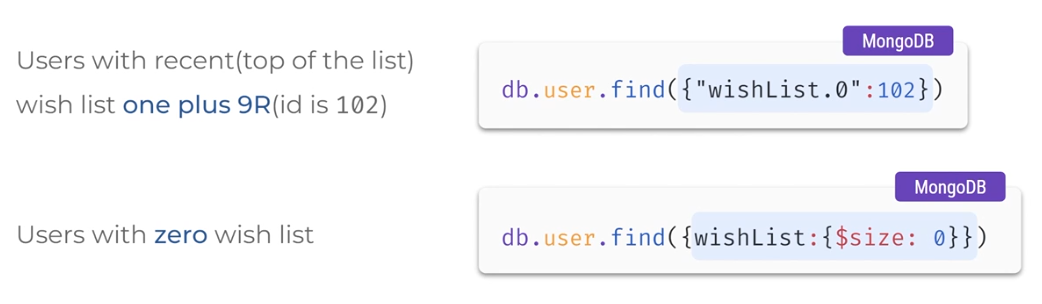
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**Array Field:**

Eg:





**Array of Nested Documents:**

