MONGODB

UPDATING DOCUMENTS 2

UPDATE OPERATORS

▸ We can modify arrays within a document using array update operators

▸ https://docs.mongodb.com/v4.0/reference/operator/update-array/

▸ Advanced operations can be confusing

▸ One step at a time!

▸ Experiment…

$

▸ First match only

▸ Not to be used in combination with upsert

▸ Syntax

  ▸ { <update operator>: { "<array>.$" : value } }

  ▸

$[]

▸ Replaces all array elements

▸ Not to be used in combination with upsert

▸ Syntax

▸ { <update operator>: { "<array>.$[]" : value } }

$[<identifier>]

▸ Replaces all that match the array filter

▸ Not to be used in combination with upsert

▸ Syntax

  ▸ { <update operator>: { "<array>.$[<identifier>]" : value } },

  ▸ { arrayFilters: [{ <identifier>: <condition> }] }

$push

▸ Adds an element to the array

▸ Syntax

  ▸ { $push: { <field1>: <value1>, ... } }

▸ Modifiers

  ▸ $each

  ▸ $slice

  ▸ $sort

  ▸ $position

$push

```
db.sales.insertOne({

   favouriteColours: [ { color: "red"}, { color: "red" }, { color: "green" }]

});


db.sales.updateMany(

   {},

   { $push: {

      favouriteColours: {

         $each: [ { color: "red" }],

         $slice: -2,

         $sort: 1

      }
```

$addToSet

▸ Adds an element if it doesn't exist

▸ Syntax

　▸ { $addToSet: { <field1>: <value1>, ... } }

$pull

▸ Removes all elements matching the supplied value

▸ Syntax

　▾ { $pull: { <field1>: <value|condition>, <field2>: <value|condition>, ... } }

$pullAll

▸ Removes all elements matching the supplied values

▸ Syntax

▸ { $pull: { <field1>: <value|condition>, <field2>: <value|condition>, ... } }

$pop

▸ Removes either the first or last element of an array

▸ Syntax

▸ { $pop: { <field>: <-1 | 1>, ... } }

PRACTICAL

▸ Experiment with updating arrays within documents

▸ Try using different operators to see their effect

OBSERVATIONS

▸ MongoDB provides complex operators for working with arrays within documents

▸ Updating documents server side is preferred

   ▸ Performance

   ▸ Concurrency

▸ Some operations are too complex to perform within a single operation

▸ Sometimes it is better to restructure your document to enable easier manipulation

▸ It's not necessary to remember how all the operators work

   ▸ The most important is to be aware of the kinds of operations that can be performed