# Lab 9 – Week 11

# (MongoDB – UPDATE)

## Objective

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In this lab, students learn how to update documents in a MongoDB database.

**update():** This method updates one document by default. If you want to update all documents that match the criteria using this method, you need the option {multi:true}.

update(<filter>,<update>,<option>)

The *filter* parameter specifies the criteria. For instance:

{“\_id”= 0}

{} for updating all documents

The *update* parameter specifies the changes that will be applied to a document.

**updateOne():** This method updates only the first document that matches the criteria.

updateOne(<filter>,<update>)

**updateMany():** This method updates all documents that match the criteria.

updateMany(<filter>,<update>)

## Getting Started

In this lab, you will use students.json dataset. Download students.json from Blackboard and store it in a folder named dataset.

Open your Windows command prompt and go the following directory where MongoDB is installed:

* cd C:\Program Files\MongoDB\Server\4.2\**bin**

To run MongoDB, execute ***mongod***

* mongod

When MongoDB starts successfully, open another Windows command prompt and go the same *bin* directory:

* cd C:\Program Files\MongoDB\Server\4.2\**bin**

and execute ***mongo***

* mongo

Or you execute a batch file to start up MongoDB.

You will import students.json to the *college* database. To import data, go to the *bin* directory:

* cd C:\Program Files\MongoDB\Server\4.2\**bin**

Execute the following command:

* mongoimport --db college --collection students --file ..\dataset\students.json

To import the *json* file, provide the full path to the students.json. After executing the command, the data is imported to the *college* database. To make sure data is imported successfully, go to the MongoDB shell and execute the following command to see the imported documents:

* show dbs

You should see the database *college* added to the list of your databases. To see the documents inside the database:

* use college
* db.students.find().forEach(printjson)

or

* db.students.find().pretty()

## Submission

You submit this file with answers (in the provided space). Name the file L09\_ID#\_LASTNAME.docx”.

## Tasks

1. Write an update statement to add new fields *program* and *term* to all documents in the *students* collection and set them to values “*CPA*” and *1*.

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| **db.getCollection('students').update({},{$set: {"program" : "CPA", "term" : 1}},{multi: true})**  Result:  **WriteResult({ "nMatched" : 38, "nUpserted" : 0, "nModified" : 38 })** |

1. Write an update statement to modify the value of the *program* field to “*BTM”* for all documents in the *students* collection.

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| **db.getCollection('students').update({},{$set: {"program" : "BTM"}},{multi: true})**  result:  **WriteResult({ "nMatched" : 38, "nUpserted" : 0, "nModified" : 38 })** |

1. Write an update statement to modify the value of the program field to “*CPA”* for the student named *Jonie Raby*.

Before executing an update statement or a delete statement, you can use the *find()* method with the update or delete criteria, to see how many documents will be affected.

Write the update statement in the box below.

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| **db.getCollection('students').update({"name": "Jonie Raby"},{$set: {"program" : "CPA"}},{multi: true})**  check :  **db.getCollection('students').find({"name" : "Jonie Raby"})**  result:  **{ "\_id" : 26, "name" : "Jonie Raby", "scores" : [ { "score" : 19.17861192576963, "type" : "exam" }, { "score" : 76.3890359749654, "type" : "quiz" }, { "score" : 44.39605672647002, "type" : "homework" } ], "program" : "CPA", "term" : 1 }** |

How many documents are there with the value *Jonie Raby* for the *name* field? \_\_\_\_\_\_\_

How many documents were updated? \_\_\_\_\_\_\_\_

1. Write a query to show only the *program* field for the document that the value of the filed *name* is *Jonie Raby*.

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| **db.getCollection('students').find({"name" : "Jonie Raby"},{program :1,\_id: 0})**  result :  **{ "program" : "CPA" }** |

1. Write an update statement to increase the value of the *term* field by 2 for documents with *\_id* 20, 22, and 24.

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| **db.getCollection('students').update({"\_id": {$in:[20,22,24]}},{$inc: {"term" : 2}},{multi:true})**  result :  **WriteResult({ "nMatched" : 3, "nUpserted" : 0, "nModified" : 3 })** |

1. Write an update statement to remove the *term* field from documents that the value of the *term* filed is 3.

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| **db.getCollection('students').update({"term": 3},{$unset: {"term":""}},{multi : true})**  result :  **WriteResult({ "nMatched" : 3, "nUpserted" : 0, "nModified" : 3 })** |