# Lab 9 – MongoDB – UPDATE

## Objective

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>)

## Submission

For this lab, you should submit a file with the below exercises completed.

Your file should be called: **L09–*lastname-firstname*** (for example: L09-King-Les)

## 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\4.4\**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\4.4\**bin**

Execute the following command:

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

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()

## 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*.

|  |
| --- |
| db.students.update({}, {"$set": {"program": "CPA", "term": 1}}, {multi:true}) |

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

|  |
| --- |
| db.students.update({}, {"$set": {"program": "BTM"}}, {multi:true}) |

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.

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

How many documents are there with the value *Jonie Raby* for the *name* field? \_\_1\_\_\_\_\_

How many documents were updated? \_\_1\_\_\_\_\_\_

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

|  |
| --- |
| db.students.find({"name":"Jonie Raby"}, {"program": 1, "\_id": 0})  { "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.students.update({"\_id": {"$in": [20,22,24]}}, {"$inc": {"term": 2}}, {multi:true}) |

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

|  |
| --- |
| db.students.update({"term": 3}, {"$unset": {"term": 1}}, {multi:true}) |