# Lab 9 – Week 12

# (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>)

## Getting Started

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

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

* C:\mongodb-database-tools\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*.

|  |
| --- |
| db.students.updateMany({}, { $set: { program: "CPA", term: 1 } }); |

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.students.updateMany({}, {$set: {program: "BTM"} }); |

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.updateOne({name: "Jonie Raby"}, {$set: {program: "CPA"} });  college> db.students.find({name: "Jonie Raby"}).count()  1  college> 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: '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*.

|  |
| --- |
| college> 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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| --- |
| college> db.students.updateMany({\_id: {$in: [20,22,24] } },{$inc$inc: { term: 2 } });  {  acknowledged: true,  insertedId: null,  matchedCount: 3,  modifiedCount: 3,  upsertedCount: 0  }db |

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

|  |
| --- |
| college> db.stduents.updateMany({ term: 3}, {$unset: {term: ""} } );  {  acknowledged: true,  insertedId: null,  matchedCount: 0,  modifiedCount: 0,  upsertedCount: 0  } |