Names & IDs:

Hiu Fung Chan (106184237),

Henry Lau (121235238),

Trung Kien Phan (123266231)

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Purpose: Lab 9 DBS311 (Group 9)

# Lab 9 – Week 11

# (MongoDB – Query and Update)

## Objective

In this Lab, you learn to query and update a collection in a database in MongoDB.

Group work acknowledgment

We, ------------(mention your names), declare that the attached assignment is our own work in accordance with the Seneca Academic Policy. No part of this assignment has been copied manually or electronically from any other source (including web sites) **or distributed to other students.**

Specify below what each member has done towards the completion of this work:

Name Task(s)

1-

2-

3-

Instructions

1. Switch to database called Lab9. Type use Lab9

Even if it is non-existing, MongoDB will create a database called Lab8. Type again db

The operation should return Lab9

1. Use insert() to insert the following item in the products collection.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| code | desc | indate | qoh | min | price | Colors | Size | Package |
| 11QER/31 | Power painter, 15 psi., 3-nozzle | 2011-11-03 | 100 | 5 | 109.99 | Black, red | l: 24  w:19.99  h:14.99  uom: "cm" | weight: 1.79 uom: "kg" |

1. Use findOne() and show the document in the products collection. Use pretty() for formatting.
2. Use insertMany() to bulk insert the following items in the products collection. When the data is missing for a specific attribute, the document should not contain that attribute as key in its structure.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| code | desc | indate | qoh | min | price | Colors | Size | Package |
| 13-Q2/P2 | 7.25-in. pwr. saw blade | 2011-12-13 | 32 | 15 | 14.99 | - | w: 7.25  h: 0.25  uom: in | - |
| 14-Q1/L3 | 9.00-in. pwr. saw blade | 2011-11-13 | 18 | 12 | 17.49 | Metallic | l: 9  uom: in | weight: 0.6  uom: lbs |
| 1546-QQ2 | Hrd. cloth, 1/4-in., 2x50 | 2012-01-15 | 15 | 8 | 39.95 | silver | l:50  h:2  uom: ft | weight: 19.5  uom: lbs |
| 1558-QW1 | Hrd. cloth, 1/2-in., 4x50 | 2012-01-15 00:00:00.000 | 23 | 5 | 43.99 | - | l:50  h:4  uom: ft | weight: 40  uom: lbs |

## Tasks

1. Write a query to return desc and *price* for products of color silver.

|  |
| --- |
| db.products.find({colors: “silver”}, {desc: 1, price: 1, \_id:0}) |

1. Write a query to return desc and *price* for products with price between $12 and $20 (Values *12* and *20* are included).

|  |
| --- |
| db.products.find({"$and" : [{"price" : {"$gte" : 12}}, {"price" : {“$lte” : 20}}]}, {desc: 1, price: 1, \_id: 0}) |

1. Write a query to return code, desc, *price*, and color for products that are not of color metallic.

|  |
| --- |
| db.products.find({colors: {“$nin”: [“metallic”]}}, {desc: 1, price: 1, code: 1, \_id:0}) |

1. Write a query to return code, desc, *price*, and color for products with color metallic or silver.

|  |
| --- |
| db.products.find({colors: {“$in”: [“metallic”, “silver”]}}, {desc: 1, price: 1, code: 1, \_id: 0}) |

1. Write a query to return code, desc, *price*, and color for products that do have the color key.

|  |
| --- |
| db.products.find({colors: {$exists: true}}, {desc: 1, price: 1, code: 1, \_id: 0}) |

1. Write a query to return code, desc, *price*, and color for products that their color is both black and red.

|  |
| --- |
| db.products.find({colors: {$all: [“black”, “red”]}}, {desc: 1, price: 1, code: 1, colors: 1, \_id: 0}) |

**Updating Multiple Documents**

1. Use updateMany() function and the “$set” operator to roll out a new feature “tag” to all products as an array of tags. Consider the value “tools” as a tag element.

|  |
| --- |
| db.products.updateMany({}, {$set: {tag: [“tools”]}}) |

**Update many using the $push operator.**

1. Add the tag “durable” to the tag array for all products in the products collection.

|  |
| --- |
| db.products.updateMany({}, {$push: {tag: “durable”}}) |

**Add multiple elements to an array**

1. Use $push and $each operators to push multiple colors to product 1558-QW1 in one operation. Add colors key and an array with black and white for the colors.

|  |
| --- |
| db.products.updateMany({code: “1558-QW1”}, {$push: {colors: {$each: [“black”, “white”]}}} ) |

**Add multiple elements and avoid duplicates.**

1. use "$addToSet" in conjunction with "$each" to add the colors black and green to the colors array for product 1558-QW1. This product already has the black color in the list. The operation should not add duplicate values in the colors array.

|  |
| --- |
| db.products.updateMany({code: “1558-QW1”}, {$addToSet: {colors: {$each: [“green”, “black”]}}}) |

SUBMISSION

Submit your lab9\_GroupX.doc file on BB. Replace X with your group number.

If a student does not contribute to the work, do not list his/her name(s) under the group section in the lab file and will get 0.