**Lab1**

The following collection of five documents is given. Documents consist of orders. An order has an id (e.g. “o1”), the year in which it was issues, the cost, the items in the order, and the number of days it took to deliver the order. The cost is specified as price in a given currency. The order items consist of products. A product has an id (e.g., “p1”), colours, and quantity.

{"order":"o1","year":2020,"paid":"Y","cost":{"price":30,"currency":"NOK"},

"items":[{"product":"p1","colours":["blue","black"],"quantity":15}],"delivery\_days":5},

{"order":"o2","year":2020,"paid":"Y","cost":{"price":13,"currency":"EUR"},

"items":[{"product":"p2","colours":["white"],"quantity":4},

{"product":"p3","colours":["white","black"],"quantity":1}],"delivery\_days":4},

{"order":"o3","year":2018,"paid":"N","cost":{"price":33,"currency":"EUR"},

"items":[{"product":"p3","colours":["blue","black"],"quantity":4}], "delivery\_days":4},

{"order":"o4","year":2017,"paid":"Y","cost":{"price":17,"currency":"NOK"},

"items":[{"product":"p2","colours":["pink","black"],"quantity":14},

{"product":"p4","colours":["white"],"quantity":1}], "delivery\_days":2},

{"order":"o5","year":2020,"paid":"Y","cost":{"price":19,"currency":"NOK"}, "items":[{"product":"p1","quantity":15}], "delivery\_days":3}

## Queries

1. Retrieve all documents in a collection

db.task1.find()

1. Retrieve all documents that contain paid orders (the "paid" field is "Y")

db.task1.find({paid: "Y"})

1. Retrieve all documents that contain orders whose price currency is in NOK

db.task1.find({"cost.currency" : "NOK"})

1. Retrieve all documents with orders that contain product "p2"

db.task1.find({"items.product" : "p2"})

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Create database named: FacultySystemDB.

1. Create collection (student) that has:
   * FirstName: string
   * LastName: string
   * Age: Number
   * Faculty: An object that has Name and Address
   * Grades: An array of objects, each object has: CourseName, Grade, Pass (Boolean).
   * IsFired: Boolean
2. Insert 3 (at least) documents in Student collection with different values.
   * Try inserting one record each time
   * Try inserting collection using on insert statement.
3. Retrieve the following data:
   * All Students.

db.student.find()

* + Student with specific First Name.

db.student.find({fName : "Hager"})

* + All fired students.

db.student.find({isFired : true})

* + Display student with specific First Name, and display his First Name, Last name, IsFired fields only.

db.student.find({fName : "Hager"}, {fName: 1, lName: 1, isFired: 1})

1. Update the student with specific FirstName, and change his LastName.

db.student.updateOne({fName : "Hager"} , {$set : {lName : "Abdel-latif"}})

1. Delete Fired students.

db.student.deleteMany({isFired : true})

1. Delete all students collection.

db.student.drop()

1. Delete the whole DB.

db.dropDatabase()

Create new database named: FacultySystemV2.

use FacultySystemV2