Mongo DB Assignment-1

Q1. Create a new database called student\_management.



Q2. Create a collection called students in the student\_management database.



Q3. Insert at least five student records into the students collection. Each record should have the following fields:

* student\_id (integer)
* name (string)
* age (integer)
* department (string)
* courses (array of strings)
* grade (string)

db.student.insertMany([

{student\_id:101,name:"Frankline",age:20,department:"Computer Science",course:["HTML","DataBase system"],grade:"A"},

{student\_id:102,name:"Lester",age:21,department:"Computer Science",course:["HTML","DataBase system"],grade:"B"},

{student\_id:103,name:"Trevor",age:23,department:"Information Technology",course:["B.Tech","B.Com"],grade:"C"},

{student\_id:104,name:"Micheal",age:20,department:"Hotel Management",course:["BHM","BBA"],grade:"D"},

{student\_id:105,name:"Jhon",age:25,department:"Information Technology",course:["B.Tech","B.Com"],grade:"A"},

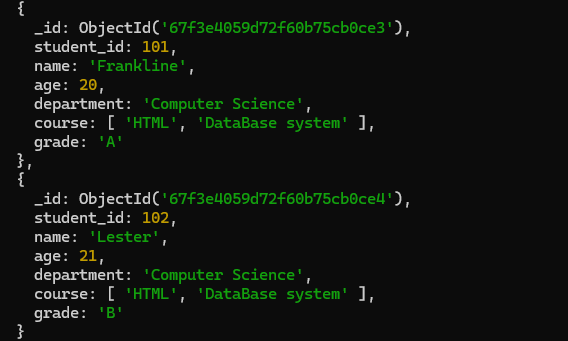
{student\_id:106,name:"Top",age:24,department:"Hotel Management",course:["BHM","BBA"],grade:"B"}])

Q4. Query the Collection:

Write queries to perform the following tasks:

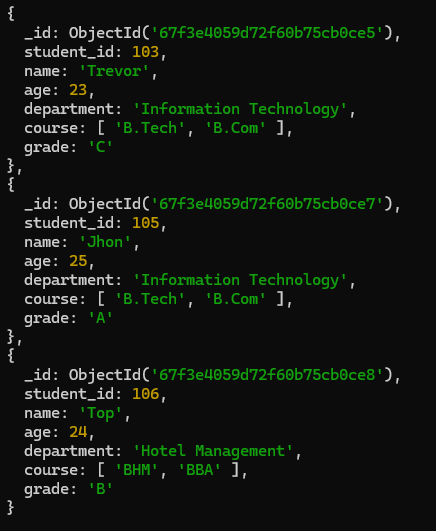
\*Retrieve all students who are in the "Computer Science" department.

db.student.find({department:"Computer Science"})

\*534

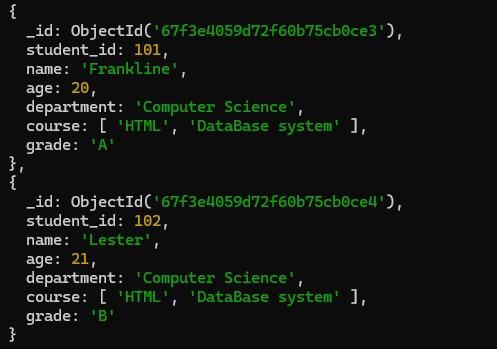
\*Retrieve students who have an age greater than 21

db.student.find({age:{$gt:21}})



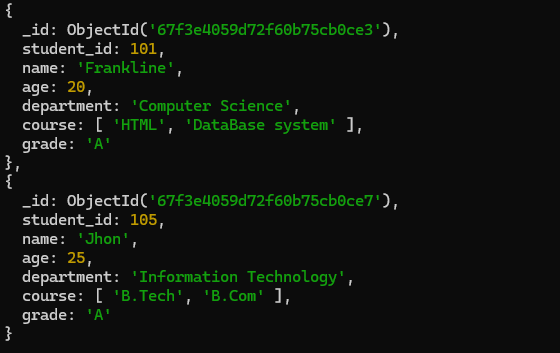
\*Retrieve students who are taking the "Database Systems" course

db.student.find({course:"DataBase system"})



\*Retrieve students with a grade of "A".

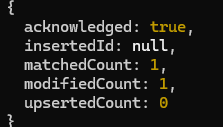
db.student.find({grade:"A"})

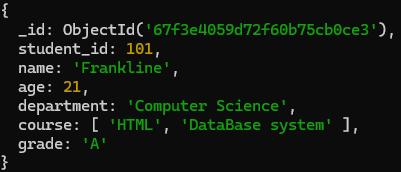


Q5. Update Documents:

\*Update the age of a student with student\_id 101 to 21

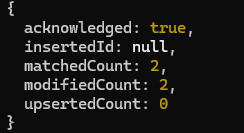
db.student.updateOne({student\_id:101},{$set:{age:21}})

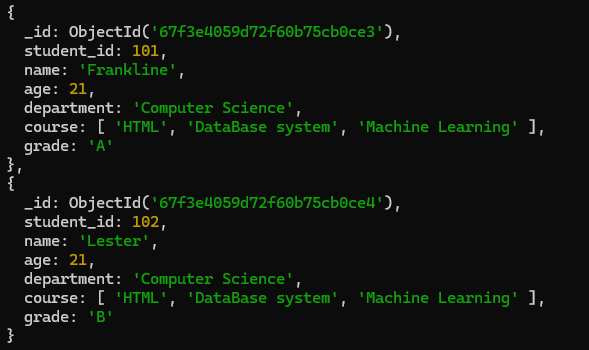




\*Add a new course, "Machine Learning", to the courses array for students in the "Computer Science" department.

db.student.updateMany({department:"Computer Science"},{$addToSet:{course:"Machine Learning"}})



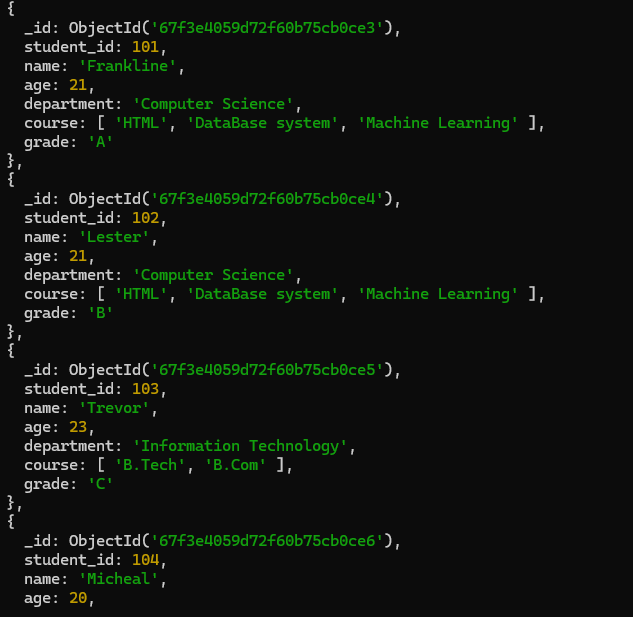


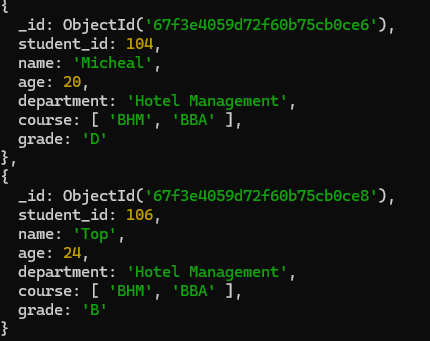
Q6. Delete Documents:

Delete a student record with student\_id 105

db.student.deleteOne({student\_id:105})







\*Delete all students who have a grade lower than "C".

db.student.deleteMany({grade:{$lt:"C"}})

