**SOFTWARE LABORATORY 1**

**GROUP A – EXPERIMENT 3**

**TITLE:**

MongoDB Queries: Design and Develop MongoDB Queries using CRUD operations. (Use CRUD operations, SAVE method, logical operators etc.).

**CODE:**

(base) student@student-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ mongosh

test> use schoolDB

switched to db schoolDB

schoolDB> db.students.insertMany([{ name: "Alice", age: 22, course: "CS", gpa: 3.7, graduated: false }, { name: "Bob", age: 24, course: "IT", gpa: 3.4, graduated: true }, { name: "Charlie", age: 21, course: "DS", gpa: 3.8, graduated: false }, { name: "Diana", age: 23, course: "AI", gpa: 3.9, graduated: true }])

{

acknowledged: true,

insertedIds: {

'0': ObjectId('688b19637c3a754a6ac59f35'),

'1': ObjectId('688b19637c3a754a6ac59f36'),

'2': ObjectId('688b19637c3a754a6ac59f37'),

'3': ObjectId('688b19637c3a754a6ac59f38')

}

}

schoolDB> db.students.insertOne({ name: "Eve", age: 25, course: "Cybersecurity", gpa: 3.5, graduated: false})

{

acknowledged: true,

insertedId: ObjectId('688b19837c3a754a6ac59f39')

}

schoolDB> db.students.find().pretty()

[

{

\_id: ObjectId('688b19637c3a754a6ac59f35'),

name: 'Alice',

age: 22,

course: 'CS',

gpa: 3.7,

graduated: false

},

{

\_id: ObjectId('688b19637c3a754a6ac59f36'),

name: 'Bob',

age: 24,

course: 'IT',

gpa: 3.4,

graduated: true

},

{

\_id: ObjectId('688b19637c3a754a6ac59f37'),

name: 'Charlie',

age: 21,

course: 'DS',

gpa: 3.8,

graduated: false

},

{

\_id: ObjectId('688b19637c3a754a6ac59f38'),

name: 'Diana',

age: 23,

course: 'AI',

gpa: 3.9,

graduated: true

},

{

\_id: ObjectId('688b19837c3a754a6ac59f39'),

name: 'Eve',

age: 25,

course: 'Cybersecurity',

gpa: 3.5,

graduated: false

}

]

schoolDB> db.students.find({ $and: [ { gpa: { $gt: 3.5 } }, { graduated: false }]}).pretty()

[

{

\_id: ObjectId('688b19637c3a754a6ac59f35'),

name: 'Alice',

age: 22,

course: 'CS',

gpa: 3.7,

graduated: false

},

{

\_id: ObjectId('688b19637c3a754a6ac59f37'),

name: 'Charlie',

age: 21,

course: 'DS',

gpa: 3.8,

graduated: false

}

]

schoolDB> db.students.updateOne( { name: "Bob" }, { $set: { gpa: 3.6 }})

{

acknowledged: true,

insertedId: null,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0

}

schoolDB> db.students.deleteOne({ name: "Diana" })

{ acknowledged: true, deletedCount: 1 }

schoolDB> db.students.deleteMany({ graduated: true })

{ acknowledged: true, deletedCount: 1 }

schoolDB> db.students.find().pretty()

[

{

\_id: ObjectId('688b19637c3a754a6ac59f35'),

name: 'Alice',

age: 22,

course: 'CS',

gpa: 3.7,

graduated: false

},

{

\_id: ObjectId('688b19637c3a754a6ac59f37'),

name: 'Charlie',

age: 21,

course: 'DS',

gpa: 3.8,

graduated: false

},

{

\_id: ObjectId('688b19837c3a754a6ac59f39'),

name: 'Eve',

age: 25,

course: 'Cybersecurity',

gpa: 3.5,

graduated: false

}

]

schoolDB> show collections

students