**LAB ASSIGNMENT 6**

**NOSQL**

Create a database named college and then create a collection named studlist. Insert some values into it [You can use the data in test.json file].

Program

use college

switched to db college

> show collections

college

> db.createCollection("studlist")

{ "ok" : 1 }

>db.studlist.insert({"name":{"fname":"Raji","lname":"SR"},"gender":"female","contact":{"House name":"pattaseril","street":"eastkallada","district":"kollam","mob":8680763765},"department":"MCA","mark":90,"grade":"A+"})

WriteResult({ "nInserted" : 1 })

>db.studlist.insert({"name":{"fname":"Raji","lname":"SR"},"gender":"female","contact":{"House name":"pattaseril","street":"eastkallada","district":"kollam","mob":8680763765},"department":"MCA","mark":90,"grade":"A+"})

WriteResult({ "nInserted" : 1 })

>db.studlist.insert({"name":{"fname":"Varun","lname":"Dani"},"gender":"male","contact":{"House name":"dan villa","street":"nandhancode","district":"trivandrum","mob":8614763765},"department":"Mech","mark":92,"grade":"A+"})

WriteResult({ "nInserted" : 1 })

>db.studlist.insert({"name":{"fname":"Leni","lname":"kunjumon"},"gender":"female","contact":{"House name":"kunjumon","street":"kallada","district":"kollam","mob":9614763765},"department":"Mech","mark":98,"grade":"A+"})

WriteResult({ "nInserted" : 1 })

>db.studlist.insert({"name":{"fname":"Rahul","lname":"R"},"gender":"male","contact":{"House name":"revathy","street":"pothencode","district":"trivandrum","mob":9605763765},"department":"MCA","mark":85,"grade":"A"})

WriteResult({ "nInserted" : 1 })

>db.studlist.insert({"name":{"fname":"Vishnu","lname":"Lal"},"gender":"male","contact":{"House name":"vishnu bhavan","street":"kulathoor","district":"trivandrum","mob":9605563765},"department":"mech","mark":89,"grade":"A"})

WriteResult({ "nInserted" : 1 })

>db.studlist.insert({"name":{"fname":"Feba","lname":"george"},"gender":"female","contact":{"House name":"feby villa","street":"kadambanad","district":"kollam","mob":9605893765},"department":"MCA","mark":98,"grade":"A"})

WriteResult({ "nInserted" : 1 })

>db.studlist.insert({"name":{"fname":"Rino","lname":"sunny"},"gender":"male","contact":{"House name":"Rino bhavan","street":"cherai","district":"eranakulam","mob":9605893768},"department":"mech","mark":82,"grade":"A"})

WriteResult({ "nInserted" : 1 })

>db.studlist.insert({"name":{"fname":"Arun","lname":"thomas"},"gender":"male","contact":{"House name":"Arun bhavan","street":"thiruvalla","district":"kottayam","mob":9603393768},"department":"MCA","mark":95,"grade":"A+"})

WriteResult({ "nInserted" : 1 })

> db.studlist.find().pretty()

{

"\_id" : ObjectId("628deb01ad4155a2fa309dde"),

"name" : {

"fname" : "Raji",

"lname" : "SR"

},

"gender" : "female",

"contact" : {

"House name" : "pattaseril",

"street" : "eastkallada",

"district" : "kollam",

"mob" : 8680763765

},

"department" : "MCA",

"mark" : 90,

"grade" : "A+"

}

{

"\_id" : ObjectId("628debc4ad4155a2fa309ddf"),

"name" : {

"fname" : "Varun",

"lname" : "Dani"

},

"gender" : "male",

"contact" : {

"House name" : "dan villa",

"street" : "nandhancode",

"district" : "trivandrum",

"mob" : 8614763765

},

"department" : "Mech",

"mark" : 92,

"grade" : "A+"

}

{

"\_id" : ObjectId("628dec77ad4155a2fa309de0"),

"name" : {

"fname" : "Leni",

"lname" : "kunjumon"

},

"gender" : "female",

"contact" : {

"House name" : "kunjumon",

"street" : "kallada",

"district" : "kollam",

"mob" : 9614763765

},

"department" : "Mech",

"mark" : 98,

"grade" : "A+"

}

{

"\_id" : ObjectId("628ded1fad4155a2fa309de1"),

"name" : {

"fname" : "Rahul",

"lname" : "R"

},

"gender" : "male",

"contact" : {

"House name" : "revathy",

"street" : "pothencode",

"district" : "trivandrum",

"mob" : 9605763765

},

"department" : "MCA",

"mark" : 85,

"grade" : "A"

}

{

"\_id" : ObjectId("628ded74ad4155a2fa309de2"),

"name" : {

"fname" : "Vishnu",

"lname" : "Lal"

},

"gender" : "male",

"contact" : {

"House name" : "vishnu bhavan",

"street" : "kulathoor",

"district" : "trivandrum",

"mob" : 9605563765

},

"department" : "mech",

"mark" : 89,

"grade" : "A"

}

{

"\_id" : ObjectId("628dee3bad4155a2fa309de3"),

"name" : {

"fname" : "Feba",

"lname" : "george"

},

"gender" : "female",

"contact" : {

"House name" : "feby villa",

"street" : "kadambanad",

"district" : "kollam",

"mob" : 9605893765

},

"department" : "MCA",

"mark" : 98,

"grade" : "A"

}

{

"\_id" : ObjectId("628deec0ad4155a2fa309de4"),

"name" : {

"fname" : "Rino",

"lname" : "sunny"

},

"gender" : "male",

"contact" : {

"House name" : "Rino bhavan",

"street" : "cherai",

"district" : "eranakulam",

"mob" : 9605893768

},

"department" : "mech",

"mark" : 82,

"grade" : "A"

}

{

"\_id" : ObjectId("628def50ad4155a2fa309de5"),

"name" : {

"fname" : "Arun",

"lname" : "thomas"

},

"gender" : "male",

"contact" : {

"House name" : "Arun bhavan",

"street" : "thiruvalla",

"district" : "kottayam",

"mob" : 9603393768

},

"department" : "MCA",

"mark" : 95,

"grade" : "A+"

}

Write a MongoDB Query to:

Q1) Display name (both fname and lname) and mark of all female students in MCA

department.

Query:

> db.studlist.find({"gender":"female","department":"MCA"},{"name":1,"mark":1}).pretty()

{

"\_id" : ObjectId("628deb01ad4155a2fa309dde"),

"name" : {

"fname" : "Raji",

"lname" : "SR"

},

"mark" : 90

}

{

"\_id" : ObjectId("628dee3bad4155a2fa309de3"),

"name" : {

"fname" : "Feba",

"lname" : "george"

},

"mark" : 98

}

Q2). Display the details of student who secured highest mark in the course MCA

Query:

db.studlist.find({"department":"MCA"}).sort({"mark":-1}).limit(1).pretty()

{

"\_id" : ObjectId("628dee3bad4155a2fa309de3"),

"name" : {

"fname" : "Feba",

"lname" : "george"

},

"gender" : "female",

"contact" : {

"House name" : "feby villa",

"street" : "kadambanad",

"district" : "kollam",

"mob" : 9605893765

},

"department" : "MCA",

"mark" : 98,

"grade" : "A"

Q3). Display all male students who secured A+ grade

Query:

db.studlist.find({"gender":"male","grade":"A+"}).pretty()

{

"\_id" : ObjectId("628debc4ad4155a2fa309ddf"),

"name" : {

"fname" : "Varun",

"lname" : "Dani"

},

"gender" : "male",

"contact" : {

"House name" : "dan villa",

"street" : "nandhancode",

"district" : "trivandrum",

"mob" : 8614763765

},

"department" : "Mech",

"mark" : 92,

"grade" : "A+"

}

{

"\_id" : ObjectId("628def50ad4155a2fa309de5"),

"name" : {

"fname" : "Arun",

"lname" : "thomas"

},

"gender" : "male",

"contact" : {

"House name" : "Arun bhavan",

"street" : "thiruvalla",

"district" : "kottayam",

"mob" : 9603393768

},

"department" : "MCA",

"mark" : 95,

"grade" : "A+"

}

>

Q4). Display the names of the top three students in Mechanical department.

Query:

i", "district" : "eranakulam", "mob" : 9605893768 }, "department" : "mech", "mark" : 82, "grade" : "A" }

> db.studlist.find({"department":"mech"}).sort({"mark":-1}).limit(3).pretty()

{

"\_id" : ObjectId("628ded74ad4155a2fa309de2"),

"name" : {

"fname" : "Vishnu",

"lname" : "Lal"

},

"gender" : "male",

"contact" : {

"House name" : "vishnu bhavan",

"street" : "kulathoor",

"district" : "trivandrum",

"mob" : 9605563765

},

"department" : "mech",

"mark" : 89,

"grade" : "A"

}

{

"\_id" : ObjectId("628deec0ad4155a2fa309de4"),

"name" : {

"fname" : "Rino",

"lname" : "sunny"

},

"gender" : "male",

"contact" : {

"House name" : "Rino bhavan",

"street" : "cherai",

"district" : "eranakulam",

"mob" : 9605893768

},

"department" : "mech",

"mark" : 82,

"grade" : "A"

}