**Non-relational(NoSQL) Database-MongoDB**

**SET-11**

**1. Perform CURD operation**

**//create database**

> use maggie;

switched to db Maggie

**//create collection**

> db.createCollection('Student');

**//insertion**

> db.Student.insertOne({‘Rno’: '1',’Name’: 'Merin', ‘Class’: 'MCA'});

WriteResult({ "nInserted" : 1 })

maggie> db.Student.insertMany([{'Rno':'2','Name':'Arun','Class':'MCA'},

... {'Rno':'3','Name':'Manu','Class':'MCA'},

... {'Rno':'4','Name': 'Nidha','Class':'MCA'},

... {'Rno':'5','Name':'Arya','Class':'MCA'},

... {'Rno':'6','Name':’Jennie ','Class':'MCA'},

... {'Rno':'7','Name':'Liya','Class':'MBA'},

... {'Rno':'8','Name':'Aju','Class':'MBA'}]);

**//select**

maggie> db.Student.find();

[

{

\_id: ObjectId('661cf395099cbbc7ea9f990b'),

Rno: '1',

Name: 'Merin',

maggie>

},

{

\_id: ObjectId('661cf395099cbbc7ea9f990c'),

Rno: '2',

Name: 'Arun',

Class: 'MCA'

},

{

\_id: ObjectId('661cf4d1099cbbc7ea9f990d'),

Rno: '3',

Name: 'Manu',

Class: 'MCA'

},

{

\_id: ObjectId('661cf4d1099cbbc7ea9f990e'),

Rno: '4',

Name: 'Nidha',

Class: 'MCA'

},

{

\_id: ObjectId('661cf4d1099cbbc7ea9f990f'),

Rno: '5',

Name: 'Arya',

Class: 'MCA'

},

{

\_id: ObjectId('661cf4d1099cbbc7ea9f9910'),

Rno: '6',

Name: 'Jennie',

Class: 'MCA'

},

{

\_id: ObjectId('66220389d1b68139249f990a'),

Rno: '7',

Name: 'Liya',

Class: 'MBA'

},

{

\_id: ObjectId('66220389d1b68139249f990b'),

Rno: '8',

Name: 'Aju',

Class: 'MBA'

}

]

**//update**

maggie> db.Student.update({ 'Name':'Manu'},{$set:{'Name':'Vinu'}});

DeprecationWarning: Collection.update() is deprecated. Use updateOne, updateMany, or bulkWrite.

{

acknowledged: true,

insertedId: null,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0

}

maggie> db.Student.find().pretty();

[

{

\_id: ObjectId('661cf395099cbbc7ea9f990b'),

Rno: '1',

Name: 'Merin',

Class: 'MCA'

},

{

\_id: ObjectId('661cf395099cbbc7ea9f990c'),

Rno: '2',

Name: 'Arun',

Class: 'MCA'

},

{

\_id: ObjectId('661cf4d1099cbbc7ea9f990d'),

Rno: '3',

Name: 'Vinu',

Class: 'MCA'

},

{

\_id: ObjectId('661cf4d1099cbbc7ea9f990e'),

Rno: '4',

Name: 'Nidha',

Class: 'MCA'

},

{

\_id: ObjectId('661cf4d1099cbbc7ea9f990f'),

Rno: '5',

Name: 'Arya',

Class: 'MCA'

},

{

\_id: ObjectId('661cf4d1099cbbc7ea9f9910'),

Rno: '6',

Name: 'Jennie',

Class: 'MCA'

},

{

\_id: ObjectId('66220389d1b68139249f990a'),

Rno: '7',

Name: 'Liya',

Class: 'MBA'

},

{

\_id: ObjectId('66220389d1b68139249f990b'),

Rno: '8',

Name: 'Aju',

Class: 'MBA'

}

]

**//remove**

maggie> db.Student.remove({'Name':'Aju'});

{ acknowledged: true, deletedCount: 1 }

maggie> db.Student.find().pretty();

[

{

\_id: ObjectId('661cf395099cbbc7ea9f990b'),

Rno: '1',

Name: 'Merin',

Class: 'MCA'

},

{

\_id: ObjectId('661cf395099cbbc7ea9f990c'),

Rno: '2',

Name: 'Arun',

Class: 'MCA'

},

{

\_id: ObjectId('661cf4d1099cbbc7ea9f990d'),

Rno: '3',

Name: 'Vinu',

Class: 'MCA'

},

{

\_id: ObjectId('661cf4d1099cbbc7ea9f990e'),

Rno: '4',

Name: 'Nidha',

Class: 'MCA'

},

{

\_id: ObjectId('661cf4d1099cbbc7ea9f990f'),

Rno: '5',

Name: 'Arya',

Class: 'MCA'

},

{

\_id: ObjectId('661cf4d1099cbbc7ea9f9910'),

Rno: '6',

Name: 'Jennie',

Class: 'MCA'

},

{

\_id: ObjectId('66220389d1b68139249f990a'),

Rno: '7',

Name: 'Liya',

Class: 'MBA'

}

]

**//save**

**//and**

maggie> db.Student.find({ $and:[{"Name":"Nidha"},{"Class":"MCA"} ]}).pretty();

[

{

\_id: ObjectId('661cf4d1099cbbc7ea9f990e'),

Rno: '4',

Name: 'Nidha',

Class: 'MCA'

}

]

**//or**

maggie> db.Student.find({ $or:[{"Name":"Jennie"},{"Class":"MBA"} ]}).pretty();

[

{

\_id: ObjectId('661cf4d1099cbbc7ea9f9910'),

Rno: '6',

Name: 'Jennie',

Class: 'MCA'

},

{

\_id: ObjectId('66220389d1b68139249f990a'),

Rno: '7',

Name: 'Liya',

Class: 'MBA'

}

]

**//nor**

maggie> db.Student.find({ $nor:[{"Name":"Nidha"},{"Class":"MCA"} ]}).pretty();

[

{

\_id: ObjectId('66220389d1b68139249f990a'),

Rno: '7',

Name: 'Liya',

Class: 'MBA'

}

]

**//eq**

maggie> db.Student.find({ "Rno":{$eq:"5" }}).pretty();

[

{

\_id: ObjectId('661cf4d1099cbbc7ea9f990f'),

Rno: '5',

Name: 'Arya',

Class: 'MCA'

}

]

/**/ne**

maggie> db.Student.find({ "Rno":{$ne:"5" }}).pretty();

[

{

\_id: ObjectId('661cf395099cbbc7ea9f990b'),

Rno: '1',

Name: 'Merin',

Class: 'MCA'

},

{

\_id: ObjectId('661cf395099cbbc7ea9f990c'),

Rno: '2',

Name: 'Arun',

Class: 'MCA'

},

{

\_id: ObjectId('661cf4d1099cbbc7ea9f990d'),

Rno: '3',

Name: 'Vinu',

Class: 'MCA'

},

{

\_id: ObjectId('661cf4d1099cbbc7ea9f990e'),

Rno: '4',

Name: 'Nidha',

Class: 'MCA'

},

{

\_id: ObjectId('661cf4d1099cbbc7ea9f9910'),

Rno: '6',

Name: 'Jennie',

Class: 'MCA'

},

{

\_id: ObjectId('66220389d1b68139249f990a'),

Rno: '7',

Name: 'Liya',

Class: 'MBA'

}

]

**//gt**

maggie> db.Student.find( { "Rno":{ $gt:"5"}}).pretty();

[

{

\_id: ObjectId('661cf4d1099cbbc7ea9f9910'),

Rno: '6',

Name: 'Jennie',

Class: 'MCA'

},

{

\_id: ObjectId('66220389d1b68139249f990a'),

Rno: '7',

Name: 'Liya',

Class: 'MBA'

}

]

**//gte**

maggie> db.Student.find( { "Rno":{ $gte:"5"}}).pretty();

[

{

\_id: ObjectId('661cf4d1099cbbc7ea9f990f'),

Rno: '5',

Name: 'Arya',

Class: 'MCA'

},

{

\_id: ObjectId('661cf4d1099cbbc7ea9f9910'),

Rno: '6',

Name: 'Jennie',

Class: 'MCA'

},

{

\_id: ObjectId('66220389d1b68139249f990a'),

Rno: '7',

Name: 'Liya',

Class: 'MBA'

}

]

**//lt**

maggie> db.Student.find( { "Rno":{ $lt:"3"}}).pretty();

[

{

\_id: ObjectId('661cf395099cbbc7ea9f990b'),

Rno: '1',

Name: 'Merin',

Class: 'MCA'

},

{

\_id: ObjectId('661cf395099cbbc7ea9f990c'),

Rno: '2',

Name: 'Arun',

Class: 'MCA'

}

]

**//lte**

maggie> db.Student.find( { "Rno":{ $lte:"3"}}).pretty();

[

{

\_id: ObjectId('661cf395099cbbc7ea9f990b'),

Rno: '1',

Name: 'Merin',

Class: 'MCA'

},

{

\_id: ObjectId('661cf395099cbbc7ea9f990c'),

Rno: '2',

Name: 'Arun',

Class: 'MCA'

},

{

\_id: ObjectId('661cf4d1099cbbc7ea9f990d'),

Rno: '3',

Name: 'Vinu',

Class: 'MCA'

}

]

**SET-12**

**1. Usage of aggregate functions**

maggie> db.createCollection('website');

{ ok: 1 }

maggie> db.website.insertMany([ {'roll':'2','name':'Jose','amount':23000,'url':'www.google.com'},

... {'roll':'3','name':'Vinu','amount':34000,'url':'www.gmail.com'}]);

{

acknowledged: true,

insertedIds: {

'0': ObjectId('66221464d1b68139249f990d'),

'1': ObjectId('66221464d1b68139249f990e')

}

}