Chit 14 –

use college\_db

db.createCollection("teachers")

db.createCollection("departments")

db.createCollection("students")

db.departments.insert([

... {

... "dno": 1,

... "dname": "Computer"

... },

... {

... "dno": 2,

... "dname": "It"

... },

... {

... "dno": 3,

... "dname": "Entc"

... },

... {

... "dno": 4,

... "dname": "Mechanical"

... },

... {

... "dno": 1,

... "dname": "Civil"

... }

... ])

db.teachers.insert([

{

"tname": "Rahul",

"dno": {

"$ref": "departments",

"$id": ObjectId("6379e1b2a8c2f73b2d061dd5")

},

"experience": 4,

"salary": 40000,

"date\_of\_joining": "2018-03-12"

},

{

"tname": "Sonali",

"dno": {

"$ref": "departments",

"$id": ObjectId("6379e1b2a8c2f73b2d061dd5")

},

"experience": 10,

"salary": 90000,

"date\_of\_joining": "2016-02-14"

},

{

"tname": "Vijay",

"dno": {

"$ref": "departments",

"$id": ObjectId("6379e1b2a8c2f73b2d061dd7")

},

"experience": 5,

"salary": 50000,

"date\_of\_joining": "2019-04-16"

},

{

"tname": "Archana",

"dno": {

"$ref": "departments",

"$id": ObjectId("6379e1b2a8c2f73b2d061dd7")

},

"experience": 12,

"salary": 100000,

"date\_of\_joining": "2013-07-19"

},

{

"tname": "Tushar",

"dno": {

"$ref": "departments",

"$id": ObjectId("6379e1b2a8c2f73b2d061dd8")

},

"experience": 8,

"salary": 95000,

"date\_of\_joining": "2017-05-17"

},

{

"tname": "Manisha",

"dno": {

"$ref": "departments",

"$id": ObjectId("6379e1b2a8c2f73b2d061dd8")

},

"experience": 10,

"salary": 80000,

"date\_of\_joining": "2016-01-26"

},

{

"tname": "Priya",

"dno": {

"$ref": "departments",

"$id": ObjectId("6379e1b2a8c2f73b2d061dd9")

},

"experience": 7,

"salary": 75000,

"date\_of\_joining": "2015-04-26"

},

{

"tname": "Sachin",

"dno": {

"$ref": "departments",

"$id": ObjectId("6379e1b2a8c2f73b2d061dd6")

},

"experience": 5,

"salary": 50000,

"date\_of\_joining": "2020-05-15"

}

])

db.students.insert([

... {

... "sname": "Varun",

... "rollno": 4,

... "class": "A"

... },

... {

... "sname": "Aditya",

... "rollno": 12,

... "class": "B"

... },

... {

... "sname": "Om",

... "rollno": 14,

... "class": "A"

... },

... {

... "sname": "Rajat",

... "rollno": 19,

... "class": "B"

... },

... {

... "sname": "Prathamesh",

... "rollno": 41,

... "class": "A"

... },

... {

... "sname": "Aditya",

... "rollno": 42,

... "class": "B"

... },

... {

... "sname": "Abhishek",

... "rollno": 45,

... "class": "A"

... },

... {

... "sname": "Atharva",

... "rollno": 58,

... "class": "B"

... }

... ])

QUERIES

• Find the information about all teachers of Dno=2 and having salary greater than or equal

to 10,000/-

db.teachers.aggregate([

{

$lookup: {

from: "departments",

localField: "dno.$id",

foreignField: "\_id",

as: "dno"

}

},

{

$match: {

"dno.dno":2,

salary: {$gte: 10000}

}

},

{

$project: {

tname: 1,

"dno.dno": 1,

"dno.dname": 1,

experience: 1,

salary: 1,

date\_of\_joining: 1,

\_id: 0

}

}

]).pretty()

• Find the student information having Roll\_no=2 or Sname='xyz'

db.students.find({$or: [{roll\_no: 2}, {sname: 'xyz'}]}).pretty()

• Update student name whose Roll\_No=5

db.students.update({roll\_no: 5}, {$set: {sname: 'Shree'}})

• Delete all student whose Class is 'FE'

db.students.remove({class: 'FE'})

• Find information of Teachers whose Experience is more than 10 years

db.teachers.find({experience: {$gt: 10}}).pretty()

• Apply index on Students Collection

db.students.createIndex({roll\_no: 1})