**EXPERIMENT - 1**

**AIM:** Create a database related to Hospital Management System and perform CRUD operations using MongoDB

**Hospital Management System**

**Creation of Database:**

test> use HMS\_532

output: switched to db HMS\_532

**1.Creation of Hospital Collection:**

HMS\_532> db.createCollection("Hospital")

Output: { ok: 1 }

**Inserting Documents:**

**Using insertOne()**

HMS\_532> db.Hospital.insertOne({'H\_id':'01','Name':'Sri Rama Nursing Home', 'location' :'Gudivada','no.of doctors':'50','no.of nurses':'60','no.of patients':'300','no.of rooms':'50'})

Output:

{

acknowledged: true,

insertedId: ObjectId('65ca4c6e02eae18cdd4c6ad1')

}

**Using insertMany()**

HMS\_532> db.Hospital.insertMany([{'H\_id':'02','Name':'Annapurna Hospitals', 'location':'Vijayawada','no.of doctors':'60','no.of nurses':'70','no.of patients':'450','no.of rooms':'150'},{'H\_id':'03','Name':'Praja Vaidyashala','location':'Gudivada','no.of doctors':'35','no.of nurses':'50','no.of patients':'250','no.of rooms':'30'}])

Output:

{

acknowledged: true,

insertedIds: {

'0': ObjectId('65ca4e8002eae18cdd4c6ad2'),

'1': ObjectId('65ca4e8002eae18cdd4c6ad3')

}

}

**Retrieving Documents:**

HMS\_532> db.Hospital.find({})

Output:

{

\_id: ObjectId('65ca4c6e02eae18cdd4c6ad1'),

H\_id: '01',

Name: 'Sri Rama Nursing Home',

location: 'Gudivada',

'no.of doctors': '50',

'no.of nurses': '60',

'no.of patients': '300',

'no.of rooms': '50'

}

{

\_id: ObjectId('65ca4e8002eae18cdd4c6ad2'),

H\_id: '02',

Name: 'Annapurna Hospitals',

location: 'Vijayawada',

'no.of doctors': '60',

'no.of nurses': '70',

'no.of patients': '450',

'no.of rooms': '150'

}

{

\_id: ObjectId('65ca4e8002eae18cdd4c6ad3'),

H\_id: '03',

Name: 'Praja Vaidyashala',

location: 'Gudivada',

'no.of doctors': '35',

'no.of nurses': '50',

'no.of patients': '250',

'no.of rooms': '30'

}

**Updating Documents:**

HMS\_532> db.Hospital.updateOne({'Name':'Annapurna Hospitals'},{$set:{'Name':'Sri Annapurna Hospitals'}})

Output:

{

acknowledged: true,

insertedId: null,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0

}

HMS\_532> db.Hospital.find({'H\_id':'02'})

{

\_id: ObjectId('65ca4e8002eae18cdd4c6ad2'),

H\_id: '02',

Name: 'Sri Annapurna Hospitals',

location: 'Vijayawada',

'no.of doctors': '60',

'no.of nurses': '70',

'no.of patients': '450',

'no.of rooms': '150'

}

**Deleting Documents:**

HMS\_532> db.Hospital.deleteOne({'H\_id':'03'})

Output:

{

acknowledged: true,

deletedCount: 1

}

**2.Creation of Doctor Collection:**

HMS\_532> db.createCollection("Doctor")

Output: { ok: 1 }

**Inserting Documents:**

**Using insertOne()**

HMS\_532> db.Doctor.insertOne({'D\_id':'001','Name':'Anand Raju','Specialization':'Dermatology','Gender':'Male','Exp':'6 yrs','Age':'30','op\_cost':'250'})

Output:

{

acknowledged: true,

insertedId: ObjectId('65ca52b102eae18cdd4c6ad4')

}

**Using insertMany()**

HMS\_532> db.Doctor.insertMany([{'D\_id':'007','Name':'Naruto Uzumaki','Specialization':'Cardiology','Gender':'Male','Exp':'7 yrs','Age':'32','op\_cost':'300'},{'D\_id':'002','Name':'Lakshmi','Specialization':'Gynacology','Gender':'Female','Exp':'15 yrs','Age':'42','op\_cost':'350'}])

Output:

{

acknowledged: true,

insertedIds: {

'0': ObjectId('65ca53c802eae18cdd4c6ad5'),

'1': ObjectId('65ca53c802eae18cdd4c6ad6')

}

}

**Retrieving Documents:**

HMS\_532> db.Doctor.find({})

Output:

{

\_id: ObjectId('65ca52b102eae18cdd4c6ad4'),

D\_id: '001',

Name: 'Anand Raju',

Specialization: 'Dermatology',

Gender: 'Male',

Exp: '6 yrs',

Age: '30',

op\_cost: '250'

}

{

\_id: ObjectId('65ca53c802eae18cdd4c6ad5'),

D\_id: '007',

Name: 'Naruto Uzumaki',

Specialization: 'Cardiology',

Gender: 'Male',

Exp: '7 yrs',

Age: '32',

op\_cost: '300'

}

{

\_id: ObjectId('65ca53c802eae18cdd4c6ad6'),

D\_id: '002',

Name: 'Lakshmi',

Specialization: 'Gynacology',

Gender: 'Female',

Exp: '15 yrs',

Age: '42',

op\_cost: '350'

}

**Updating Documents:**

HMS\_532> db.Doctor.updateOne({'Name':'Anand Raju'},{$set:{'Age':'35'}})

Output:

{

acknowledged: true,

insertedId: null,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0

}

HMS\_532> db.Doctor.find({'D\_id':'001'})

{

\_id: ObjectId('65ca52b102eae18cdd4c6ad4'),

D\_id: '001',

Name: 'Anand Raju',

Specialization: 'Dermatology',

Gender: 'Male',

Exp: '6 yrs',

Age: '35',

op\_cost: '250'

}

**Deleting Documents:**

HMS\_532> db.Doctor.deleteOne({'D\_id':'001'})

Output:

{

acknowledged: true,

deletedCount: 1

}

**3.Creation of Nurse Collection:**

HMS\_532> db.createCollection("Nurse")

Output: { ok: 1 }

**Inserting Documents:**

HMS\_532> db.Nurse.insertOne({'N\_id':'107','Name':'Hinata','Specialization': 'Cardiology','Age':'27','D\_id':'007'})

Output:

{

acknowledged: true,

insertedId: ObjectId('65ca573902eae18cdd4c6ad7')

}

**Retrieving Documents:**

HMS\_532> db.Nurse.find({})

Output:

{

\_id: ObjectId('65ca573902eae18cdd4c6ad7'),

N\_id: '107',

Name: 'Hinata',

Specialization: 'Cardiology',

Age: '27',

D\_id: '007'

}

**Updating Documents:**

HMS\_532> db.Nurse.updateOne({'Name':'Hinata'},{$set:{'Name':'Hinata Hyuga'}})

Output:

{

acknowledged: true,

insertedId: null,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0

}

HMS\_532> db.Nurse.find({})

{

\_id: ObjectId('65ca573902eae18cdd4c6ad7'),

N\_id: '107',

Name: 'Hinata Hyuga',

Specialization: 'Cardiology',

Age: '27',

D\_id: '007'

}

**4.Creation of Receptionst collection:**

HMS\_532> db.createCollection("Receptionst")

Output: { ok: 1 }

**Inserting Documents:**

HMS\_532> db.Receptionst.insertOne({'R\_id':'111','Name':'Sangeetha', 'Gender':'Female','Age':'26','Timings':'10AM - 5PM'})

Output:

{

acknowledged: true,

insertedId: ObjectId('65ca594502eae18cdd4c6ad8')

}

**Retrieving Documents:**

HMS\_532> db.Receptionst.find({})

Output:

{

\_id: ObjectId('65ca594502eae18cdd4c6ad8'),

R\_id: '111',

Name: 'Sangeetha',

Gender: 'Female',

Age: '26',

Timings: '10AM - 5PM'

}

**Updating Documents:**

HMS\_532> db.Receptionst.updateOne({'Name':'Sangeetha'},{$set:{'R\_id':'123'}})

Output:

{

acknowledged: true,

insertedId: null,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0

}

**Deleting Documents:**

HMS\_532> db.Receptionst.deleteOne({'R\_id':'123'})

Output:

{

acknowledged: true,

deletedCount: 1

}

HMS\_532> db.Receptionst.find({})

// No documents in the collection.

**5.Creation of Compounder Collection:**

HMS\_532> db.createCollection("Compounder")

Output: { ok: 1 }

**Inserting Documents:**

HMS\_532> db.Compounder.insertOne({'C\_id':'201','Name':'Sai','Age':'40', 'Specialization':' Endocrinologist ', 'D\_id':'006' })

Output:

{

acknowledged: true,

insertedId: ObjectId('65ca5b8c02eae18cdd4c6ad9')

}

**Retrieving Documents:**

HMS\_532> db.Compounder.find()

Output:

{

\_id: ObjectId('65ca5b8c02eae18cdd4c6ad9'),

C\_id: '201',

Name: 'Sai',

Age: '40',

Specialization: ' Endocrinologist ',

D\_id: '006'

}

**Updating Documents:**

HMS\_532> db.Compounder.updateOne({'Name':'Sai'},{$set:{'Name':'Sohit Sai'}})

Output:

{

acknowledged: true,

insertedId: null,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0

}

HMS\_532> db.Compounder.find()

{

\_id: ObjectId('65ca5b8c02eae18cdd4c6ad9'),

C\_id: '201',

Name: 'Sohit Sai',

Age: '40',

Specialization: ' Endocrinologist ',

D\_id: '006'

}

**Deleting Documents:**

HMS\_532> db.Compounder.deleteOne({'Name':'Sohit Sai'})

Output:

{

acknowledged: true,

deletedCount: 1

}

**6.Creation of Patient Collection:**

HMS\_532> db.createCollection("Patient")

Output: { ok: 1 }

**Inserting Documents:**

HMS\_532> db.Patient.insertMany([{'P\_id':'101','Name':'Sai','D\_id':'007', 'op\_num':'123','Gender':'Male','age':'40' , 'visited\_count':'03', 'disease':'Blood Pressure'},{'P\_id':'105','Name':'Meena','D\_id':'002','op\_num':'121', 'Gender':'Female','age':'35' , 'visited\_count':'02', 'disease':'Fatigue'}])

Output:

{

acknowledged: true,

insertedIds: {

'0': ObjectId('65ca5e0d02eae18cdd4c6ada'),

'1': ObjectId('65ca5e0d02eae18cdd4c6adb')

}

}

**Retrieving Documents:**

HMS\_532> db.Patient.find()

Output:

{

\_id: ObjectId('65ca5e0d02eae18cdd4c6ada'),

P\_id: '101',

Name: 'Sai',

D\_id: '007',

op\_num: '123',

Gender: 'Male',

age: '40',

visited\_count: '03',

disease: 'Blood Pressure'

}

{

\_id: ObjectId('65ca5e0d02eae18cdd4c6adb'),

P\_id: '105',

Name: 'Meena',

D\_id: '002',

op\_num: '121',

Gender: 'Female',

age: '35',

visited\_count: '02',

disease: 'Fatigue'

}

**Updating Documents:**

HMS\_532> db.Patient.updateOne({'Name':'Sai'},{$set:{'Name':'Ganesh'}})

Output:

{

acknowledged: true,

insertedId: null,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0

}

HMS\_532> db.Patient.find({'P\_id':'101'})

{

\_id: ObjectId('65ca5e0d02eae18cdd4c6ada'),

P\_id: '101',

Name: 'Ganesh',

D\_id: '007',

op\_num: '123',

Gender: 'Male',

age: '40',

visited\_count: '03',

disease: 'Blood Pressure'

}

**Deleting Documents:**

HMS\_532> db.Patient.deleteOne({'P\_id':'101'})

Output:

{

acknowledged: true,

deletedCount: 1

}

**7.Creation of MedicalStore Collection:**

HMS\_532> db.createCollection("MedicalStore")

Output: { ok: 1 }

**Inserting Documents:**

HMS\_532> db.MedicalStore.insertOne({'M\_id':'777','Name':'Medical Store - 1a','location':'block A','Timing':'8AM - 10PM','no.of\_staff':'10'})

Output:

{

acknowledged: true,

insertedId: ObjectId('65ca60a002eae18cdd4c6adc')

}

**Retrieving Documents:**

HMS\_532> db.MedicalStore.find()

Output:

{

\_id: ObjectId('65ca60a002eae18cdd4c6adc'),

M\_id: '777',

Name: 'Medical Store - 1a',

location: 'block A',

Timing: '8AM - 10PM',

'no.of\_staff': '10'

}

**Updating Documents:**

HMS\_532> db.MedicalStore.updateOne({'M\_id':'777'},{$set:{'location':'Block A1'}})

{

acknowledged: true,

insertedId: null,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0

}

HMS\_532> db.MedicalStore.find()

{

\_id: ObjectId('65ca60a002eae18cdd4c6adc'),

M\_id: '777',

Name: 'Medical Store - 1a',

location: 'Block A1',

Timing: '8AM - 10PM',

'no.of\_staff': '10'

}