# **MongoDB CRUD operation Crowdsourced Disaster Relief APP**

1. USRES Collection

CREATE

db.users.insertOne({

name: "Romie",

email: "romie@example.com",

password: "hashed\_password",

phone:"+91-9050342197",

role: "volunteer",

location: { type: "Point", coordinates: [80.3, 13.2] },

language:"English",

rewards: { points: 0, badges: [] },

createdAt: new Date()

});

READ

db.users.find({ role: "volunteer" });

UPDATE

db.users.updateOne({ email: "romie@example.com" }, { $inc: { "rewards.points": 10 }});

DELETE

db.users.deleteOne({ email: "romie@example.com" });

1. VOLUNTEER Collection

CREATE

db.volunteers.insertOne({

userId: "301",

availability: true,

assignedRequests: [],

currentLocation: { type: "Point", coordinates: [80.4, 13.3] },

gpsTrackingEnabled: true,

lastUpdated: new Date()

});

READ

db.volunteers.find({ availability: true });

UPDATE

db.volunteers.updateOne({ \_id: ObjectId("687fd5a29d29e118bdd58d08") }, { $set: { availability: false } });

DELETE

db.volunteers.deleteOne({ userId: "301" });

1. DONATIONS Collection

CREATE

db.donations.insertOne({

donorId: "101",

type: "clothes",

amount: 500,

"items": [

"item1",

"item2"

],

transactionId: "txn\_11",

status: "pending",

deliveredBy:"201";

createdAt: new Date()

});

READ

db.donations.find({amount:{$gt:1000}});

UPDATE

db.donations.updateOne(

{ \_id: ObjectId('687fd1d89d29e118bdd58d06') },

{

$set: {

status: 'delivered',

amount: 600,

createdAt: new Date()

},

$push: {

items: 'item3'

}

}

);

DELETE

db.donations.deleteOne({ \_id: ObjectId("687fd1d89d29e118bdd58d06") });

1. ALERTS Collection

CREATE

db.alerts.insertOne({

type: "flood",

source: "Local Authority",

message: "Flood warning in zone 3",

severity: "high",

geoLocation: {

type: "Polygon",

coordinates: [

[

[80.1, 13.0],

[80.2, 13.0],

[80.2, 13.1],

[80.1, 13.1],

[80.1, 13.0]

]

]

},

issuedAt: new Date(),

expiresAt: new Date(new Date().getTime() + 3600 \* 1000)

});

READ

db.alerts.find({severity:"high"});

UPDATE

db.alerts.updateOne(

{ \_id: ObjectId('687fd7509d29e118bdd58d09') },

{ $set: { severity: "moderate" } }

);

DELETE

db.alerts.deleteOne({\_id: ObjectId('687fd7509d29e118bdd58d09') });

1. HELPREQUEST Collection:

CREATE

db.helpRequests.insertOne({

createdBy: "301",

title: "Medical Emergency",

description: "Need immediate assistance",

category: "medical",

location: { type: "Point", coordinates: [80.2, 13.0] },

priority: "high",

status: "open",

createdAt: new Date(),

updatedAt: new Date()

});

READ

db.helpRequests.find({priority:"high"});

UPDATE

db.helpRequests.updateOne({\_id: ObjectId('687fda089d29e118bdd58d0a')},{$set:{status:"closed"}});

DELETE

db.helpRequests.deleteOne({\_id: ObjectId('687fda089d29e118bdd58d0a')})

1. RESOURCE Collection:

CREATE

db.resources.insertOne({

itemName: "Resource 1",

category: "clothes",

quantityAvailable: 50,

storedAt: {

address: "Storage 11",

coordinates: [80.3, 13.2]

},

managedBy: "8d2d134c-835b-486d-8585-39a75380e2fb",

lastUpdated: new Date()

});

READ

db.resources.find({category:"clothes"});

UPDATE

db.resources.updateOne(

{ \_id: ObjectId('6880499ccce99235f8bcfb55')},

{ $inc: { quantityAvailable: 10 } }

)

DELETE

db.resources.deleteOne({ \_id: ObjectId('6880499ccce99235f8bcfb55')});

1. MESSAGE Collection

CREATE

db.messages.insertOne({

senderId: "3493b4e5-de13-404c-a676-450b51324ea4",

receiverId: "cc2701af-1872-44f8-8acb-7b2a714db0ecd",

content: "Hello, how can I help?",

timestamp: new Date(),

read: false

});

READ

db.messages.find({read:false});

UPDATE

db.messages.updateOne({\_id: ObjectId('68804c3bcce99235f8bcfb56')},{$set:{read:true}});

DELETE

db.messages.deleteOne({\_id: ObjectId('68804c3bcce99235f8bcfb56')});

1. FEEDBACK Collection

CREATE

db.feedbacks.insertOne({

userId: "8d2d134c-835b-486d-8585-39a75380e2fb",

feedback: "Great service!",

rating: 5,

forModule: "donation",

createdAt: new Date()

});

READ

db.feedbacks.find({rating:5});

UPDATE

db.feedbacks.updateOne(

{ \_id: ObjectId('688063d12abc73e26e7d8071') },

{ $set: { rating: 4 } }

);

DELETE

db.feedbacks.deleteOne({\_id:ObjectId('688063d12abc73e26e7d8071')});

1. ANALYSIS Collection

CREATE

db.analytics.insertOne({

date: new Date(),

totalHelpRequests: 80,

volunteersActive: 20,

donationsSummary: { money: 5000, food: 200, clothes: 50 },

mostAffectedZones: [

{ coordinates: [80.2, 13.0], priority: "high" }

]

});

READ

db.analytics.find({ "donationsSummary.clothes": 50 });

UPDATE

db.analytics.updateOne(

{ \_id: ObjectId('688065ab2abc73e26e7d8072')},

{ $set: { totalHelpRequests: 85 } }

);

DELETE

db.analytics.deleteOne({\_id: ObjectId('688065ab2abc73e26e7d8072')});

1. UPDATES Collection

CREATE

db.updates.insertOne({

userId: "8d2d134c-835b-486d-8585-39a75380e2fb",

message: "Update message 11",

type: "availability",

disasterType: "flood",

verified: false,

location: {

type: "Point",

coordinates: [80.265, 13.0827]

},

createdAt: new Date()

})

READ

db.updates.find({disasterType:"flood"});

UPDATE

db.updates.updateOne({\_id:ObjectId('6880da35c5de5530f1625b5f')},{$set:{disasaterType:"drought"}});

DELETE

db.updates.deleteOne({\_id: ObjectId('6880da35c5de5530f1625b5f')});