**Project 13:**

**Digital E-Signature Platform – CRUD**

# 1. USERS Collection

## Create

db.users.insertOne({  
 name: "Nina Sharma",  
 email: "nina@example.com",  
 role: "signatory",  
 twoFAEnabled: true,  
 createdAt: new Date(),  
 updatedAt: new Date()  
})

## Read

db.users.find({ role: "signatory" })

## Update

db.users.updateOne(  
 { email: "nina@example.com" },  
 { $set: { role: "admin", updatedAt: new Date() } }  
)

## Delete

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

# 2. DOCUMENTS Collection

## Create

db.documents.insertOne({  
 ownerId: ObjectId("..."),  
 fileName: "NDA-Template.pdf",  
 fileType: "pdf",  
 category: "legal",  
 version: 1,  
 expiryDate: new Date("2025-07-30"),  
 createdAt: new Date(),  
 updatedAt: new Date()  
})

## Read

db.documents.find({ category: "legal" })

## Update

db.documents.updateOne(  
 { fileName: "NDA-Template.pdf" },  
 { $set: { version: 2, updatedAt: new Date() } }  
)

## Delete

db.documents.deleteOne({ fileName: "NDA-Template.pdf" })

# 3. SIGNATURES Collection

## Create

db.signatures.insertOne({  
 documentId: ObjectId("..."),  
 userId: ObjectId("..."),  
 signatureType: "drawn",  
 position: { x: 120, y: 400 },  
 signedAt: new Date(),  
 status: "completed"  
})

## Read

db.signatures.find({ documentId: ObjectId("...") })

## Update

db.signatures.updateOne(  
 { \_id: ObjectId("...") },  
 { $set: { status: "verified", updatedAt: new Date() } }  
)

## Delete

db.signatures.deleteOne({ \_id: ObjectId("...") })

# 4. AUDIT\_LOGS Collection

## Create

db.audit\_logs.insertOne({  
 documentId: ObjectId("..."),  
 userId: ObjectId("..."),  
 action: "signature\_added",  
 timestamp: new Date(),  
 details: "Signature added on page 3"  
})

## Read

db.audit\_logs.find({ action: "signature\_added" })

## Update

db.audit\_logs.updateOne(  
 { \_id: ObjectId("...") },  
 { $set: { details: "Signature added on page 2", updatedAt: new Date() } }  
)

## Delete

db.audit\_logs.deleteOne({ \_id: ObjectId("...") })

# 5. NOTIFICATIONS Collection

## Create

db.notifications.insertOne({  
 userId: ObjectId("..."),  
 documentId: ObjectId("..."),  
 type: "reminder",  
 message: "Please sign the NDA",  
 sentAt: new Date(),  
 status: "sent"  
})

## Read

db.notifications.find({ status: "sent" })

## Update

db.notifications.updateOne(  
 { \_id: ObjectId("...") },  
 { $set: { status: "read", updatedAt: new Date() } }  
)

## Delete

db.notifications.deleteOne({ \_id: ObjectId("...") })

## 6. TEMPLATES collection - Predefined document templates like NDAs, contracts (No CRUD)

## 7. SESSIONS collections - 2FA sessions or biometric/IP, authentication metadata (No CRUD)