import java.util.ArrayList;

import java.util.List;

import org.bson.Document;

import org.bson.conversions.Bson;

import com.mongodb.client.MongoClient;

import com.mongodb.client.MongoClients;

import com.mongodb.client.MongoCollection;

import com.mongodb.client.MongoDatabase;

import com.mongodb.client.model.Filters;

import com.mongodb.client.model.Updates;

public class Tester {

private static MongoClient mongoClient = MongoClients.create("mongodb://localhost:27017");

private static MongoDatabase database = mongoClient.getDatabase("myDb");

private static MongoCollection<Document> collection = database.getCollection("sampleCollection");

public static void main(String[] args) {

insertSingleDocument();

insertMultipleDocuments();

findAllDocuments();

findByFirstName("Mahesh");

updateEmailByFirstName("Mahesh", "new\_mahesh\_email@example.com");

addLoginCountField("Mahesh");

incrementLoginCount("Mahesh", 1);

addTag("Mahesh", "premium");

removeTag("Mahesh", "premium");

renamePhoneField();

unsetDateOfBirth("Mahesh");

deleteDocumentByFirstName("Fathima");

deleteDocumentsByDateOfBirth("1990-02-16");

mongoClient.close();

}

public static void insertSingleDocument() {

Document document = new Document("First\_Name", "Mahesh")

.append("Last\_Name", "Parashar")

.append("Date\_Of\_Birth", "1990-08-21")

.append("e\_mail", "mahesh\_parashar.123@gmail.com")

.append("phone", "9034343345");

collection.insertOne(document);

}

public static void insertMultipleDocuments() {

List<Document> documents = new ArrayList<>();

documents.add(new Document("First\_Name", "Radhika")

.append("Last\_Name", "Sharma")

.append("Date\_Of\_Birth", "1995-09-26")

.append("e\_mail", "radhika\_sharma.123@gmail.com")

.append("phone", "9000012345"));

documents.add(new Document("First\_Name", "Rachel")

.append("Last\_Name", "Christopher")

.append("Date\_Of\_Birth", "1990-02-16")

.append("e\_mail", "Rachel\_Christopher.123@gmail.com")

.append("phone", "9000054321"));

documents.add(new Document("First\_Name", "Fathima")

.append("Last\_Name", "Sheik")

.append("Date\_Of\_Birth", "1990-02-16")

.append("e\_mail", "Fathima\_Sheik.123@gmail.com")

.append("phone", "9000054321"));

collection.insertMany(documents);

}

public static void findAllDocuments() {

for (Document doc : collection.find()) {

System.out.println(doc.toJson());

}

}

public static void findByFirstName(String firstName) {

Bson filter = Filters.eq("First\_Name", firstName);

for (Document doc : collection.find(filter)) {

System.out.println(doc.toJson());

}

}

public static void updateEmailByFirstName(String firstName, String newEmail) {

Bson filter = Filters.eq("First\_Name", firstName);

Bson update = Updates.set("e\_mail", newEmail);

collection.updateOne(filter, update);

}

public static void addLoginCountField(String firstName) {

Bson filter = Filters.eq("First\_Name", firstName);

Bson update = Updates.set("loginCount", 0);

collection.updateOne(filter, update);

}

public static void incrementLoginCount(String firstName, int increment) {

Bson filter = Filters.eq("First\_Name", firstName);

Bson update = Updates.inc("loginCount", increment);

collection.updateOne(filter, update);

}

public static void addTag(String firstName, String tag) {

Bson filter = Filters.eq("First\_Name", firstName);

Bson update = Updates.push("tags", tag);

collection.updateOne(filter, update);

}

public static void removeTag(String firstName, String tag) {

Bson filter = Filters.eq("First\_Name", firstName);

Bson update = Updates.pull("tags", tag);

collection.updateOne(filter, update);

}

public static void renamePhoneField() {

Bson update = Updates.rename("phone", "contactNumber");

collection.updateMany(new Document(), update);

}

public static void unsetDateOfBirth(String firstName) {

Bson filter = Filters.eq("First\_Name", firstName);

Bson update = Updates.unset("Date\_Of\_Birth");

collection.updateOne(filter, update);

}

public static void deleteDocumentByFirstName(String firstName) {

Bson filter = Filters.eq("First\_Name", firstName);

collection.deleteOne(filter);

}

public static void deleteDocumentsByDateOfBirth(String dob) {

Bson filter = Filters.eq("Date\_Of\_Birth", dob);

collection.deleteMany(filter);

}

}