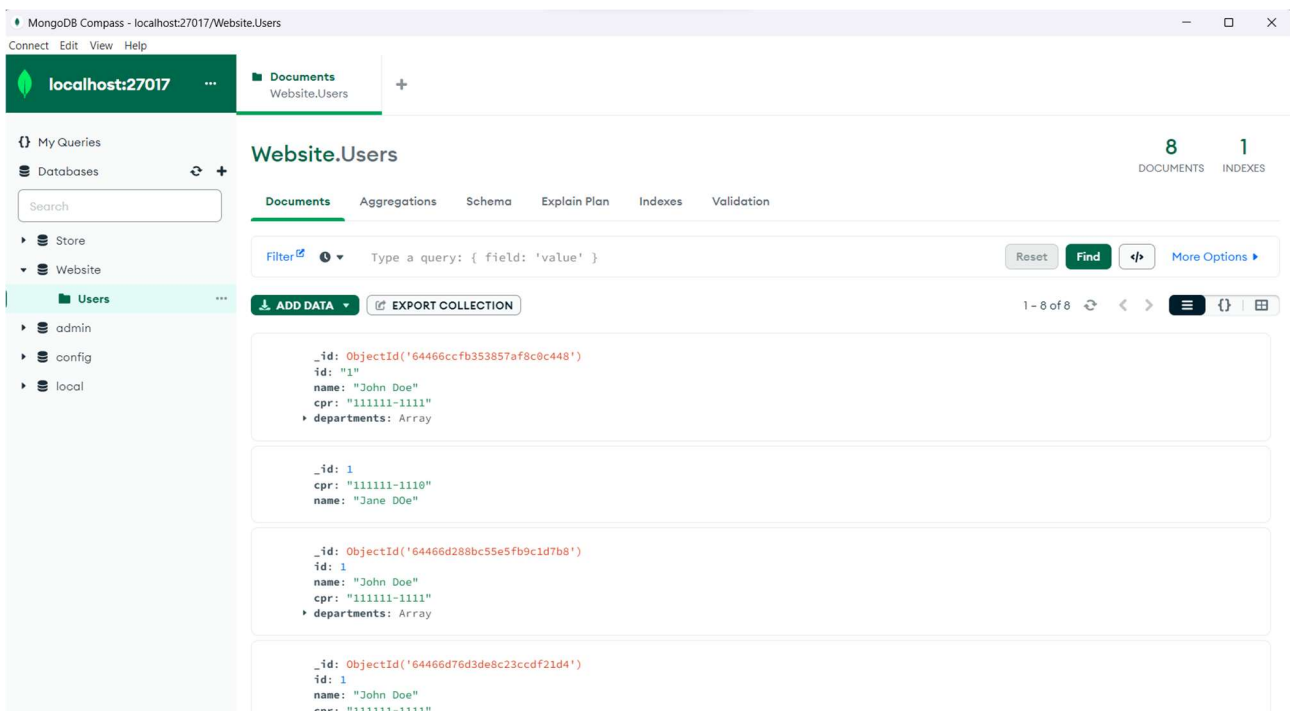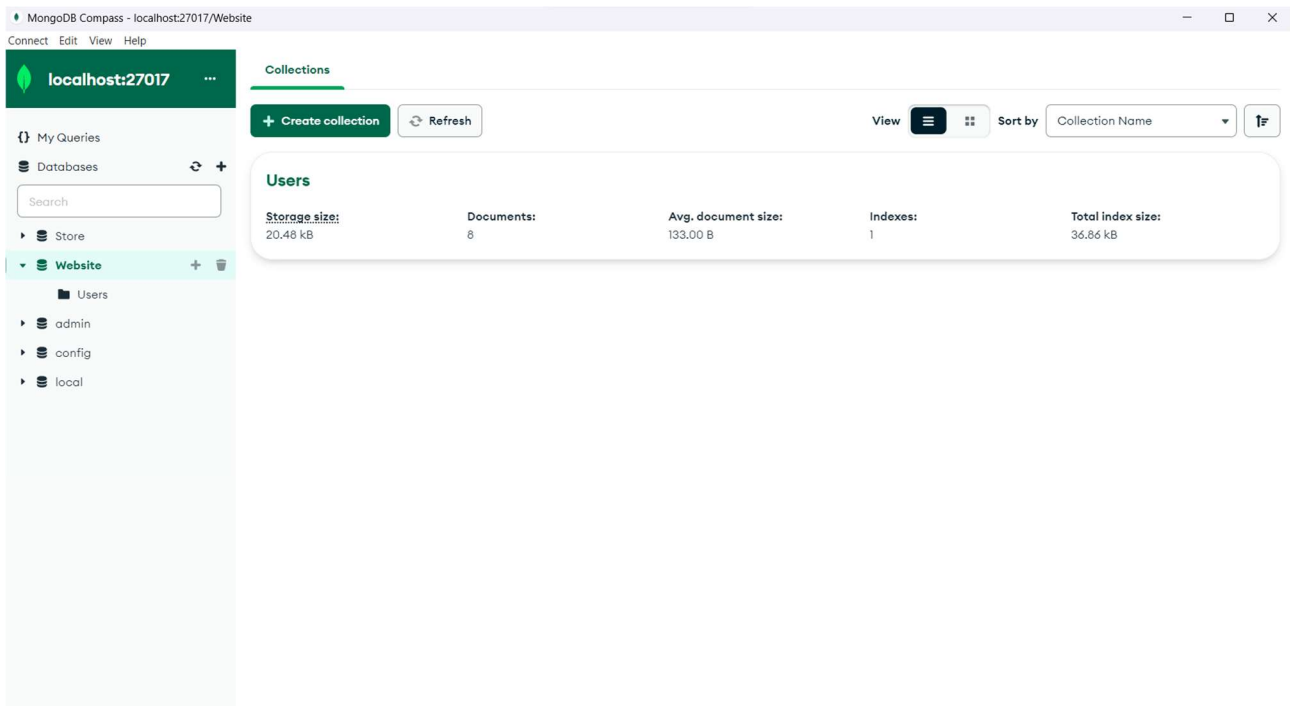# Lektionsøvelse 9

You can see above that we have inserted the images of MongoDB. Here we have created a Database in the first picture with the name of Website. Thereafter we have added the following data, by writing the JSON-Code in MongoDB.

In the next page, we will show you how to write the Java Code inside IntelliJ and how to connect it with the MongoDB in the POM. Look at the code or refer to the Youtube Video made by our Lecturer: Jakob Hviid.

```xml
1  <project xmlns="http://maven.apache.org/POM/4.0.0"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
2    xsi:schemaLocation="http://maven.apache.org/POM/4.0
   .0 http://maven.apache.org/xsd/maven-4.0.0.xsd">
3    <modelVersion>4.0.0</modelVersion>
4
5    <groupId>dk.sdu.dm</groupId>
6    <artifactId>MongoDBMS</artifactId>
7    <version>1.0-SNAPSHOT</version>
8    <packaging>jar</packaging>
9
10   <name>MongoDBMS</name>
11   <url>http://maven.apache.org</url>
12
13   <properties>
14     <project.build.sourceEncoding>UTF-8</project.
   build.sourceEncoding>
15     <maven.compiler.source>18</maven.compiler.source>
16     <maven.compiler.target>18</maven.compiler.target>
17
18   </properties>
19
20   <dependencies>
21     <dependency>
22       <groupId>junit</groupId>
23       <artifactId>junit</artifactId>
24       <version>3.8.1</version>
25       <scope>test</scope>
26     </dependency>
27     <dependency>
28       <groupId>org.mongodb</groupId>
29       <artifactId>mongo-java-driver</artifactId>
30       <version>3.12.12</version>
31     </dependency>
32   </dependencies>
33 </project>
34
```

```java
1  package dk.sdu.dm;
2
3  import com.mongodb.ConnectionString;
4  import com.mongodb.MongoClientSettings;
5  import com.mongodb.client.MongoClient;
6  import com.mongodb.client.MongoClients;
7  import com.mongodb.client.MongoCollection;
8  import com.mongodb.client.MongoDatabase;
9  import com.mongodb.client.model.Filters;
10 import org.bson.Document;
11
12 import org.bson.codecs.configuration.CodecRegistries;
13 import org.bson.codecs.configuration.CodecRegistry;
14 import org.bson.codecs.pojo.PojoCodecProvider;
15 import org.bson.types.Code;
16
17 import java.util.ArrayList;
18 import java.util.Arrays;
19 import java.util.List;
20 import java.util.logging.Level;
21 import java.util.logging.Logger;
22
23 /**
24  * Hello world!
25  *
26  */
27 public class App
28 {
29     public static void main( String[] args ) {
30         Logger.getLogger("").setLevel(Level.WARNING);
31         MongoClient mongoClient =  MongoClients.
   create("mongodb://localhost:27017");
32         MongoDatabase mongoDatabase = mongoClient.
   getDatabase("Website");
33         MongoCollection usersCollection =
   mongoDatabase.getCollection("Users");
34
35         Document john = new Document("id",0)
36                 .append("name","John Doe")
37                 .append("cpr","111111-1111")
38                 .append("departments", Arrays.asList(
```

```java
38        "Odense","Aarhus","Vejle","Horsens"));
39            System.out.println(john.toJson());
40
41            usersCollection.insertOne(john);
42
43            Document result = (Document) usersCollection.
   find(Filters.eq("name","John Doe")).first();
44            System.out.println(result.toJson());
45
46
47            CodecRegistry pojoCodecRegistry =
   CodecRegistries.fromProviders(PojoCodecProvider.
   builder().automatic(true).build());
48            CodecRegistry codecRegistry = CodecRegistries
   .fromRegistries(MongoClientSettings.
   getDefaultCodecRegistry(),pojoCodecRegistry);
49            MongoClientSettings mongoClientSettings =
   MongoClientSettings.builder()
50                    .applyConnectionString(new
   ConnectionString("mongodb://localhost:27017")).
   codecRegistry(codecRegistry).build();
51            MongoClient pojoClient = MongoClients.create(
   mongoClientSettings);
52
53            MongoDatabase pojoDatabase = pojoClient.
   getDatabase("Website");
54            MongoCollection<User> pojoUsersCollection =
   pojoDatabase.getCollection("Users",User.class);
55
56            pojoUsersCollection.insertOne(new User(1,"
   Jane DOe","111111-1110"));
57
58            List<User> userList = new ArrayList<>();
59            userList.add(new User(3,"Anne Doe","111111-
   1110"));
60            userList.add(new User(4,"Anne Doe","111111-
   1110"));
61            pojoUsersCollection.insertMany(userList);
62        }
63 }
64
```

```java
 1 package dk.sdu.dm;
 2
 3 import org.bson.codecs.pojo.annotations.BsonProperty;
 4
 5 public class User {
 6     @BsonProperty("_id")
 7     private int id;
 8     private String name;
 9     private String cpr;
10
11     public User(){
12
13     }
14     public User(int id, String name, String cpr){
15         this.id = id;
16         this.name = name;
17         this.cpr = cpr;
18     }
19
20     public int getId() {
21         return id;
22     }
23
24     public void setId(int id) {
25         this.id = id;
26     }
27
28     public String getName() {
29         return name;
30     }
31
32     public void setName(String name) {
33         this.name = name;
34     }
35
36     public String getCpr() {
37         return cpr;
38     }
39
40     public void setCpr(String cpr) {
41         this.cpr = cpr;
```

```
42        }
43
44
45 }
46
```