Lab 8

Part A:

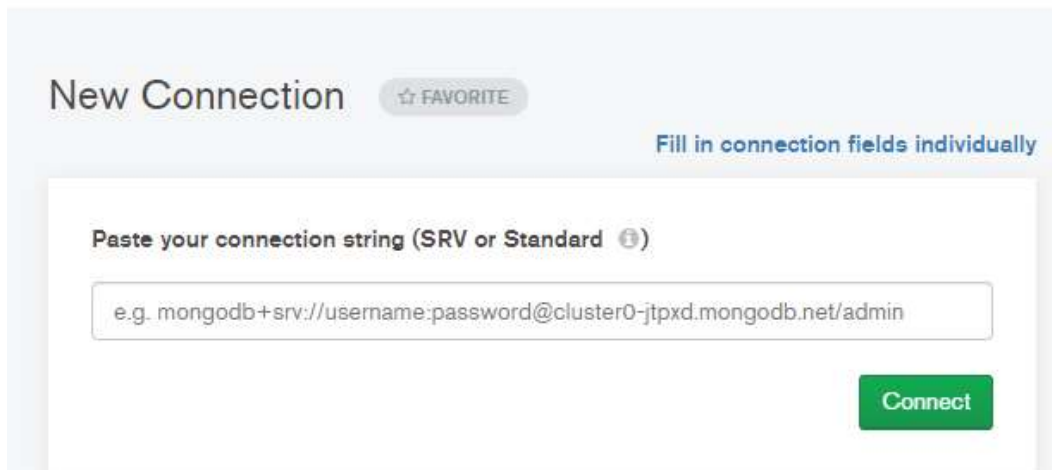First we have to start the mongo database by running

C:\EnterpriseArchiteture\mongodb\bin\startmongo.bat

If the prompt disappears immediately and mongodb does not start then remove the file
C:\EnterpriseArchiteture\mongodb\data\db\mongodb.lock

Then start **MongoCompass** by double clicking the file
C:\EnterpriseArchiteture\mongocompass\MongoDBCompass.exe

Click the **Connect** button.

You can now browse thru the databases in MongoDB.

Modify the given project **SpringBootMongo** so that we have the following domain classes:
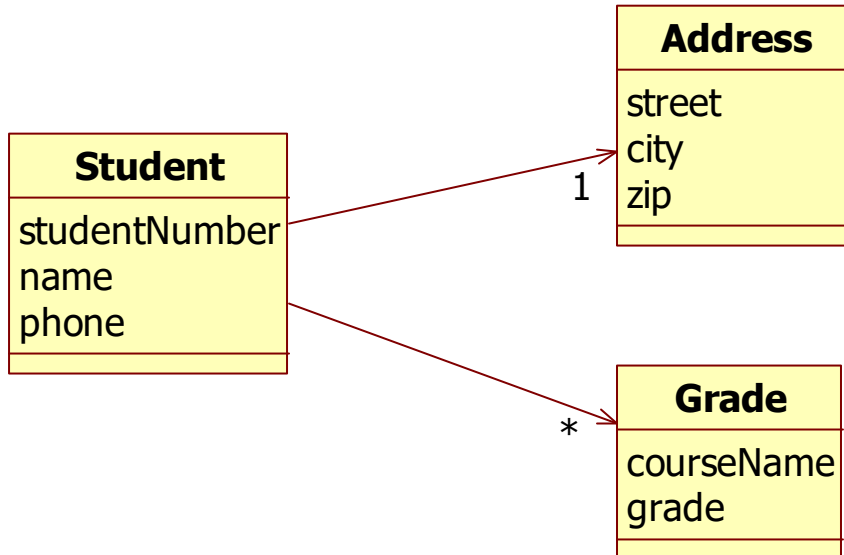

Create a few students and save them in MongoDB.
Then write the following queries using method names:
- **Find the Students with a certain name**
- **Find the Students with a certain phone number**

- **Find the Students from a certain city**

Then modify the application to the following domain model:

Then write the following queries using method names:
- **Find the Students that took a certain course with a given name**
- **Find the Students with an A+ for a certain course name**

Part B:

Write an application using Spring JPA that stores 10.000 Persons in the HSQLDB database where every person has a list of 10 Pet objects. A Person has a first name and last name and a Pet has a name and an age. Write a loop that creates all Person and Pet objects

After storing the 10.000 Persons with their Pets, retrieve all 10.000 Person with their Pets.

Measure the time it took to store all the Person and the time it took to retrieve all the Persons.

Then write a new application that does exactly the same, only it uses the MongoDB instead of HSQLDB. Then compare the times it took for both inserting the data and retrieving the data for the different databases.

Part C:
Make a copy of your latest Bank application and modify this copy so that all data is stored in MongoDB and not in HSQLDB.

What to hand in:
1. A separate zip file with the solution of part A
2. A separate zip file with the solution of part B
3. A separate zip file with the solution of part C