NDBI040: **Big Data Management and NoSQL Databases**

http://www.ksi.mff.cuni.cz/~svoboda/courses/2016-1-NDBI040/

Practical Class 5

MongoDB Document Database

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First Steps

Remotely connect to our NoSQL server

- SSH and SFTP access
- PuTTY and WinSCP on Windows
- **nosql.ms.mff.cuni.cz:42222**

Start mongo shell

- `mongo`

Switch to your database

- `use login`

Insert sample data into your database

- Empty your collections first
- See /home/NOSQL/mongodb/data.js

Exercise 1

Express the following MongoDB query

- **Find actors born in *1966* with first name *Jiri***

Exercise 2

Express the following MongoDB query

- **Find movies directed by *Jan Hrebejk***
- Note that the order of fields for first and last names can be arbitrary

Exercise 3

Express the following MongoDB query

- **Find actors with first name *Jiri* who played in *Medvidek* movie**
- Return names of these actors only

Exercise 4

Express the following MongoDB query

- **Find movies shot between years *2000* and *2005* such that they have a director specified**
- Return movie identifier only
- Order the result by ratings in descending order and then by years in ascending order

Exercise 5

Express the following MongoDB query

- **Find actors who stared in *Samotari* or *Medvidek* movies**
- Return actor identifier only
- Find two different approaches

Exercise 6

Express the following MongoDB query

- **Find actors who played in both *Samotari* and *Medvidek***
- Return actor identifier only
- Find two different approaches

Exercise 7

Express the following MongoDB query

- **Find movies with Czech title equal to *Vratne lahve***
- Return movie title only
- Note that there are two means how movie titles are defined

Exercise 8

Express the following MongoDB query

- Find actors having their movies defined as an array
- **Return actor identifier and the second and third movie only (if any)**

Exercise 9

Express the following MongoDB query
- **Find movies in which at least one actor with an identifier ending with *ova* played**
- Return movie identifier and the first actor who satisfies such a condition

Exercise 10

Express the following MongoDB query
- **Find movies that have a *Czech Lion* award from *2005***
- Return movie identifier and all awards

Exercise 11

Express the following MongoDB query

- **Find movies that are *comedies* and *dramas* at the same time or**
  have a rating *80* or more
- Return movie identifier only