BUSINESS ACADEMY
AARHUS

Databases & XML (8) - 11.04.2016

Time	Subject
8.30	Introduction for today & APIs
8.35	JSON/API tutorial
9.00	JSON exercise 2.2
10.00	Break
10.30	Mongo exercise 1
11.00	Mongo exercise 2
11.30	Mongo exercise 3
12.00	Lunch
12.30 – 14.00	Workshop

Agenda

- **API** = Application Programming Interfaces
- Open Source means all the code is available to everyone
- Commercial sites make parts of the code available for developers so that they can build tools/widgets/applications for the site

- This code = API

- Some advantages
  - The host side gets lots of new, cool features for free
  - The developers get opportunities to make cool stuff – standing on the shoulders of giants

http://www.codecademy.com/courses/javascript-beginner-en-EID4t/0/1?curriculum_id=5122e3cbb5827b93e2000865

19 pages tutorial

```
{
    "company": Volkswagen,
    "name": "Vento",
    "price": 800000
}
```

```
<car>
    <company>Volkswagen</company>
    <name>Vento</name>
    <price>800000</price>
</car>
```

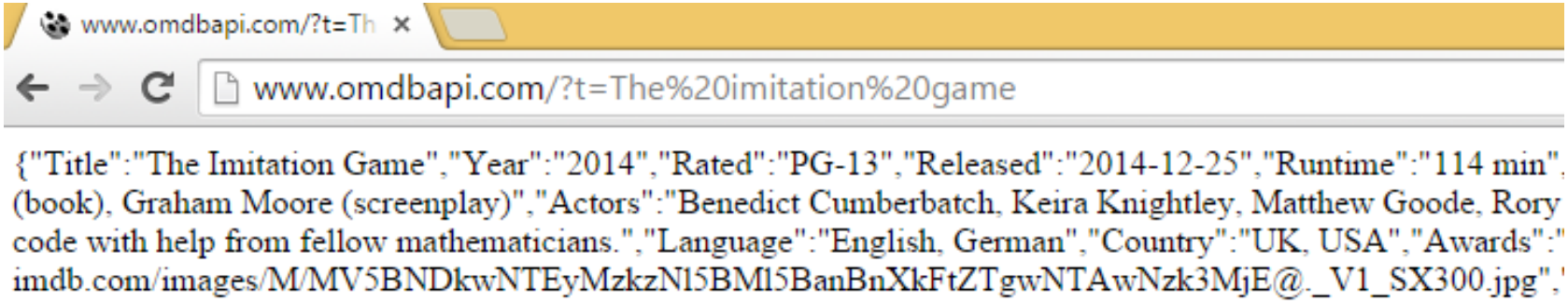
JSON exercise 2.1

In this exercise, you'll practice using JSON to dynamically build up HTML. The starter webpage already has the videos described in JSON and functions that turn them into an interactive list.

Go through these steps, and do as many as you can in the time we have:

- Download json_starter.html into your favourite html/javascript editor.
- Read through the code to make sure you understand how it works
- Add an additional video to the JSON, so that you have 4 videos listed
- When you click on the video, it shows the video player on the side. Make it so that it also shows an h2 with the video title above the iframe.
- Add an "author" property to each video in the JSON and display that next to the title.
- Bonus: Add a "favourite" property to each video which is either true or false, and use that to decide whether to output the video's link in red or not.

JSON exercise 1.2



JSON exercise 2.2

The Imitation Game - MOVIECLIPS Trailers

IMDB rating: 8.2 Rotten tomatoes rating: 7.7

```
$.getJSON(url, function (data) {
```

JSON exercise 2.2

- Now we are going to change our youtube-website a little bit
- Read here about how you use the OMDB api:

http://www.omdbapi.com/

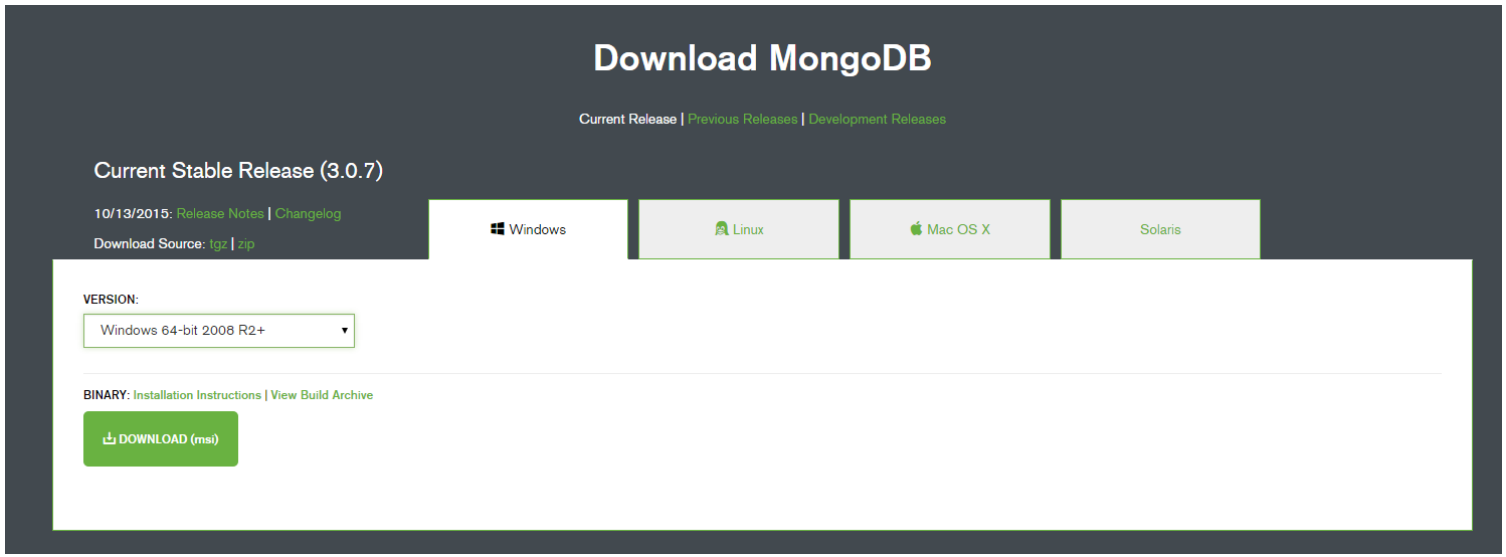
- First adjust your embedded JSON code to contain 4 movie trailers in stead of random videos
- Below the video playing, add the imdb rating and the rotten tomatoes rating of that video
- Personalize your site, look at the JSON object and add data that you find interesting in any design you want (e.g. actors, year, images etc.)
- Tip – use the browser's developer tool to examine your code (usually F12)

JSON exercise 2.2

Install MongoDB

For Windows:
https://docs.mongodb.org/manual/tutorial/install-mongodb-on-windows/

For Mac:
https://docs.mongodb.org/manual/tutorial/install-mongodb-on-os-x/



Exercise 1

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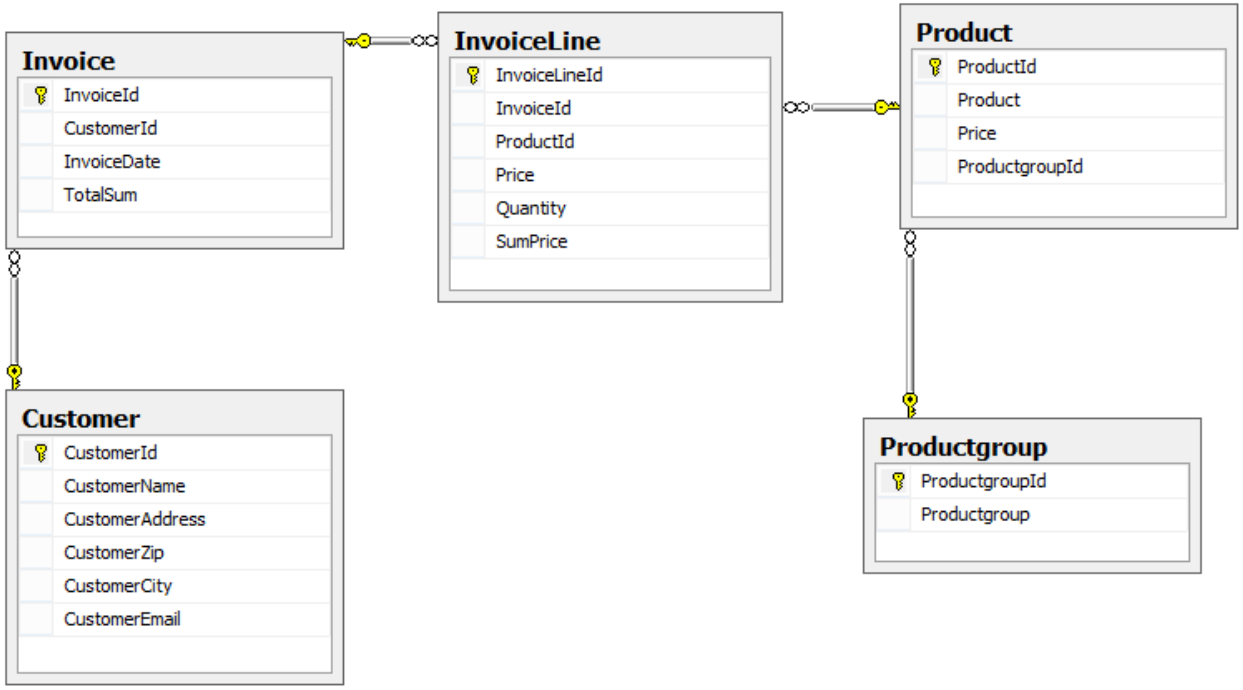
Create database (testDb)

Create collection (testColl)

Insert a document
(a user with relevant properties, e.g. name, age and role)



Create a database (webshop) with the relevant collection for selling products

Exercise 3

- Finish the exercises:
  - JSON 1.1 (Codecademy from last time)
  - JSON 1.2 (Youtube videos from last time)
  - JSON 2.1 (Codecademy API from today)
  - JSON 2.2 (Youtube videos from today)
  - MONGO 1 (Install MongoDB)
  - MONGO 2 (Create test-data)
  - MONGO 3 (Create webshop)

Until next time