# Exercise 2:
# CouchDB expressing queries[1]

## Requirement

- [AlloCine files]

## 1   To Hand In

This exercise will be handed in electronically:
- You will form groups of 2 or three
- A report with answers and explanations of the principle you adopted in PDF (no other format accepted)
- The report will state the JavaScript answers to the questions.

## 2   To Do

For this exercise you will use a set of file containing information about the films presented in Grenoble in 2011[2]. Each of these files contains the films presented in a cinema of Grenoble at that time (i.e. there is a file per cinema and a total number of 9).[3]

Start by creating and populating a new database in CouchDB using the data contained in the files named *allocineGrenobleN.txt* with *N* from *1* to *9*. For this purpose execute the following commands:

```
curl -X PUT http://localhost:5984/allocine

curl -T "allocineGrenoble1.txt" http://localhost:5984/allocine/allocineGrenoble1 curl -T
"allocineGrenoble2.txt" http://localhost:5984/allocine/allocineGrenoble2 curl -T
"allocineGrenoble3.txt" http://localhost:5984/allocine/allocineGrenoble3 curl -T
"allocineGrenoble4.txt" http://localhost:5984/allocine/allocineGrenoble4 curl -T
"allocineGrenoble5.txt" http://localhost:5984/allocine/allocineGrenoble5 curl -T
"allocineGrenoble6.txt" http://localhost:5984/allocine/allocineGrenoble6 curl -T
"allocineGrenoble7.txt" http://localhost:5984/allocine/allocineGrenoble7 curl -T
"allocineGrenoble8.txt" http://localhost:5984/allocine/allocineGrenoble8 curl -T
"allocineGrenoble9.txt" http://localhost:5984/allocine/allocineGrenoble9
```

[2] Dr. Alexandre TERMIER, University Joseph Fourier, designed this exercise. It has been slightly modified for this course.

[3] This information was retrieved from AlloCine using the API.

***In your report give the code and a screen shot with the content on the database.***

Using this database answer the following questions and do not forget to give (i) the code of the answer and (ii) the screenshots with the content of the database.

Feel free to use the CouchDB book for getting some inspiration (http://guide.couchdb.org)

### 2.1.1   Question 1

Note that the data set is quite complete. Define a simplified view in MapReduce that contains for each theatre the films presented in it. **Hint**: You do not need a "reduce" here.

### 2.1.2   Question 2

Modify your answer to question 1 for filtering the theatres outside Grenoble downtown (e.g., do not include the theatres in Saint Martin d'Hères).

### 2.1.3   Question 3

Give the number of films that each theatre is presenting. **Hint**: You need a "reduce" here.

### 2.1.4   Question 4

Give the list of films with a press rating higher than 4 stars. **Attention**: filter duplicates.

### 2.1.5   Question 5

Give the list of films presented 2 years ago (10.12.2011), and for each film, the theatre where it was presented and its schedule.

### 2.1.6   Question 7 (BONUS)

Give the list of films and for every film the list of theatres that present it. This question is a challenge but we encourage you to try to solve it.