# Report assignment 2 big data

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## Exercice 1:

Q1. The release year of the movie "Le parrain III".

```
db.movies.find({"title": "Le parrain III"}, {"_id":0, "year":1})
```

Q2. The title of the movies released between 1980 and 1990.

```
db.movies.find({"year" : {"$gte" : 1980, "$lte" : 1990}}, {"title" : 1, "_id" : 0})
```

Q3. Same query as b. with the titles must be sorted by alphabetical order.

```
db.movies.find({"year" : {"$gte" : 1980, "$lte" : 1990}}, {"title" : 1, "_id" : 0}).sort("title":1)
```

Q4. The titles of the french movies.

```
db.movies.find({"country" : "FR"}, {"title" : 1, "_id" : 0})
```

Q5. The title of the "crime" or "drama" movies.

```
db.movies.find({"$or" : [{"genre":"crime"}, {"genre":"drama"}]}, {"title" : 1, "_id" : 0})
```

Q6. The names and birth dates of the directors of french movies.

```
db.movies.find({"country" : "FR"}, {"director.first_name" : 1, "director.last_name":1,  "director.birth_date":1,  "_id" : 0})
```

Q7. The title of the movies in which Sofia Coppola played.

```
db.movies.find({"actors.first_name":"Sofia", "actors.last_name":"Coppola"}, {"title" : 1, "_id" : 0})
```

Q8. The title and the genre of the movies of which Hitchcock is director.

```
db.movies.find({"director.last_name":"Hitchcock"}, {"title" : 1, "genre" : 1,  "_id" : 0})
```

**Exercice 2**

By using the MongoDB shell, execute the following queries by using aggregation pipelines.

Q1. The number of movies by country. Show by decreasing number.

```
db.movies.aggregate({"$group" : {_id:"$country", count:{$sum:1}}},
{"$sort": {"count" : -1}})
```

Q2. The name of the actor in the role "Mary Corleone" in the movie "Le parrain III".

```
db.movies.aggregate({$match: {"title" : "Le parrain III"}},
{$project: { _id: 0, actors: {$filter: {
            input: "$actors",
            as: "actor",
            cond: { $eq: [ "$$actor.role", "Mary Corleone" ] }
        }}}})
```

Q3. The number of actors by movie. Sort by decreasing number.

```
db.movies.aggregate({ $project: { _id:0, title: 1, nbOfActors: {
$size: "$actors"}}})
```

Q4. The average number of actors in a film.

# Exercice 3

```
db.movies_boffice.aggregate([ { "$lookup": { "from": "movies",
"localField":"_id", "foreignField":"_id", as:"comp"}}, { $match: {
"comp.title": "Le parrain III" }}]);
```

and if we only want to retrieve the box office we project that field.

```
db.movies_boffice.aggregate([ { "$lookup": { "from": "movies",
"localField":"_id", "foreignField":"_id", as:"comp"}}, { $match: {
"comp.title": "Le parrain III" }}, {$project:{_id:0,
box_office:1}}]);
```