

# Exercise 5 Report

## Gruppe 16

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1)

### INSERT

```
> db.films.insert({
  title: "Iron Man 3",
  year: 2013,
  genre: [ "Action", "Adventure", "Sci-Fi", ],
  actors: [ "Downey Jr., Robert", "Paltrow, Gwyneth", ]
})
WriteResult({ "nInserted" : 1 })
```

### QUERY

```
> db.films.find(
  { year: { $gt: 2009, $lte: 2011 }, title: /^T/ },
  { _id: 0, title: 1 }
)
WriteResult({ "nInserted" : 1 })
```

### UPDATE

```
> db.films.update(
  { title: "Star Trek Into Darkness" },
  { $set: { rating: 6.4 } }
)
WriteResult({ "nMatched": 1, "nUpserted": 0, "nModified": 1 })
```

### DELETE

```
> db.films.remove({ title: /^T/ })
WriteResult({ "nRemoved" : 2 })
```

## INDEXING

```
> db.movies.find({rating: {$gt: 6.14,$lt: 7.78}})
      .explain("executionStats")
{
  ...
  "executionTimeMillis" : 172,
  ...
}
```

```
> db.movies.ensureIndex({rating: 1})
> db.movies.find({rating: {$gt: 6.14,$lt: 7.78}})
      .explain("executionStats")
{
  ...
  "executionTimeMillis" : 118,
  ...
}
```

## 2)

We implemented following functionality:

- **findMovieByTitle**  
We used `movies.find(new Document("title", title)).first()` for this method because we couldn't find an equivalent to `findOne`.
- **getBestMovies**  
We combined `Filters.and` and `Filters.gt` to filter for movies that have a rating and number of votes larger than the given arguments.
- **getByGenre**  
We used `Filters.all` to filter for all movies that have the given filters. We also added a `.replace(" ", "")` so the user can have whitespaces in the query.
- **searchByPrefix**  
We applied a `Filters.regex` with pattern `^prefix` to filter for movies beginning with the given prefix.
- **getTweetedMovies**  
To find movies that have been tweeted about we comined a `Filters.exists("tweets")` and a `Filters.ne("tweets", null)` filter. In theory the `Filters.nin` filter is redundant as movies without tweets don't have the tweets-field, but added the null-check for robustness.
- **saveMovieComment**  
Executes a `updateOne` for a given movie Object-ID and sets the new comment.

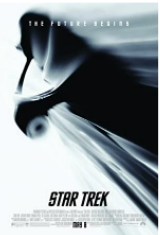
- **getByTweetsKeywordRegex**  
For this method we used a 2 phase query. First we find tweets that match the keyword-regex and collect the distinct values of the **movies** field. Afterwards we fetch the movies by the values we collected in the first step.
- **searchTweets**  
After the index has been created on **text** and **user.name** we use **Filters.text** to do a full-text search over the indexed fields.
- **getNewestTweets**  
We fetch the latest object-ids to find the corresponding tweets.
- **getGeotaggedTweets**  
We search for tweets that have the field "**coordinates**" and it's not null.
- **saveFile** We use **GridFSBucket.uploadFromStream** to upload the file.
- **getFile** First we try to fetch the first **GridFSFile** that matches the given file-name via **GridFSBucket.find**. If that file doesn't exist we fetch the backup file **sample.png** from that we know it is available.

**findMovieByTitle / getFile / saveFile / saveMovieComment**

Title

Star Trek

Poster



Import Poster from IMDB

Upload:

Datei auswählen

Keine ausgewählt

Comment

Editable. You can edit and save this comment.

This is a test comment

Saved

Year

1966-1969

Rating

8.4

Votes

18074

Runtime

50 minutes

Genre

Adventure,Sci-Fi

Plot

The adventures of the U.S.S. Enterprise representing the

@Alain Garrido Blanes: A por Star Trek: En la oscuridad. De momento, lo mejor de la semana.

@Gabriella Jones: @r\_cousins I do apologise if my nose starts leaking during Star Trek.. Just shove it in a popcorn box or something...

@Amirul Hakim: Nok tengok Iron Man 3, Fast 6, KIL, hangover part III, Man of steel, After Earth, Star Trek, Hummingbird. Bitch please, im at kelantan.

@Diegohkiin: Pase de prensa de Star Trek Into Darkness!! @Cinefiloes (at @YelmoCines Icaria 3D) <http://t.co/qOR8BqQXjg>

@Mia Clrss Hrnndz ♡: Star Trek. INTO DARKNESS :)

@kcdaf40@gmail.com: I'm watching Star Trek <http://t.co/lhsKk6ZbXg> #GetGlue #StarTrek

@Jade: RT @JoellOrtiz: I checked that new Star Trek joint out yesterday... Pretty dope.

@Sark Mc: Liked a @YouTube video from

## Query the Movie Database

searchTweets  
Query Tweets

4

## getNewestTweets

### Query Tweets

Query

Newest Tweets (no param) ▾

Go

Parameter

parameter taken by the query

Result Limit

10

Show ▾ 25

search results per page

Filter search results:

User	Tweet	Created at	Coordinates
esra okyay	RT @taylorswift13: Filing this under 'never in my wildest dreams'.Thank you @RollingStones for inviting me to Chicago to sing with you. httâ€¦	Tue Jun 04 11:27:24 +0000 2013	
Kylie Green	There could be someone camping out in my house right now while I'm home alone and i'd never know ðŸ™ˆ	Tue Jun 04 11:27:24 +0000 2013	
Meghan McCormick	Thinking of buying a home? Here's a quick list of the basic steps you should take before starting the hunt. I'm her... https://t.co/lcrdprihg3	Sat Jun 20 23:47:10 +0000 2020	-72.63106,42.32181
P.O.K.	@tomashirstmoney hmm, end of credit super cycle = unknown. Allocate and automate for pension yes but less confident over 5 years.	Tue Jun 04 11:27:25 +0000 2013	
Rob Stanish	Jordan's before and after at the barbershop. It looks dope! Thanks double_e_cuts @ The Gentlemen's Barbershop https://t.co/jW8UEh30EB	Sat Jun 20 23:00:55 +0000 2020	-76.78853,40.86089
Sam cull	@JamesGDavies I took a Stanley blade through two of me fingers, felt vile	Tue Jun 04 11:27:24 +0000 2013	

## getBestMovies

### Query the Movie Database

Query

Rating Greater ▾

Parameter

8

Result Limit

10

Show ▾ 25

search results per page

Filter search results:

Title	Year	Rating	Votes	Genre	Runtime	Movie	Tweets	More
Between Two Ferns with Zach Galifianakis	2008	8.8	1009	Comedy, Talk-Show		true	0	<a href="#">Details</a>
Green Day: Bullet in a Bible	2005	8.6	1002	Comedy, Documentary, Music	USA:115	true	0	<a href="#">Details</a>
KÅ 'kyÅ ' shihen Eureka Seibun	2005-2006	8.3	1015	Animation, Drama, Romance, Sci-Fi	Japan:25	true	0	<a href="#">Details</a>
Naked News	2000	8.1	1017	Comedy, News	60	true	0	<a href="#">Details</a>
Occupation 101	2006	8.1	1016	Documentary	USA:90	true	0	<a href="#">Details</a>
Powers of Ten	1977	8.1	1001	Documentary, Short	9	true	0	<a href="#">Details</a>
Prime Suspect: The Final Act	2006	8.5	1015	Crime, Drama, Mystery, Thriller	182	true	0	<a href="#">Details</a>
Przesluchanie	1989	8.1	1022	Crime, Drama, Thriller	118	true	0	<a href="#">Details</a>
Traffik	1989	8.5	1022	Crime, Drama	USA:50, 315	true	0	<a href="#">Details</a>